Involving Communities in Coastal Management

INVOLVING COMMUNITIES IN COASTAL MANAGEMENT

By:
Department of Environment and Natural Resources

Bureau of Fisheries and Aquatic Resources
of the
Department of Agriculture

Department of the Interior and Local Government

and

Coastal Resource Management Project
of the
Department of Environment and Natural Resources
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Philippines

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Department of Environment and Natural Resources (DENR)
Bureau of Fisheries and Aquatic Resources of the Department of Agriculture (DA-BFAR)
Department of the Interior and Local Government (DILG)
and
Coastal Resource Management Project (CRMP)

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List of acronyms and abbreviations

ASEAN	-	Association of Southeast Asian Nations
BFAR	-	Bureau of Fisheries and Aquatic Resources
CB-CRM	-	Community-based Coastal Resource Management
CBFM	-	Community-based Forest Management
CENRO	-	Community Environment and Natural Resources Officer
CO	-	community organizer
CRM	-	coastal resource management
CRMP	-	Coastal Resource Management Project
DENR	-	Department of Environment and Natural Resources
DILG	-	Department of the Interior and Local Government
DOTC	-	Department of Transportation and Communications
DOST-PCAMRD	-	Department of Science and Technology – Philippine Council for Aquatic and Marine Research and Development
DSWD	-	Department of Social Welfare and Development
FGD	-	Focus Group Discussion
GOLD-ARD	-	Governance and Local Democracy – Associates in Rural Development
ICM	-	integrated coastal management
IFARMC	-	Integrated Fisheries and Aquatic Resources Management Council
IEC	-	information, education, communication
IIRR	-	International Institute of Rural Reconstruction
LGC	-	Local Government Code
LGU	-	local government unit
MAO	-	Municipal Agricultural Office
MFARMC	-	Municipal Fisheries and Aquatic Resources Management Council
MOA	-	Memorandum of Agreement
MPDO	-	Municipal Planning and Development Office
MSWDO	-	Municipal Social Welfare and Development Office
NGO	-	nongovernment organization
NIPAS	-	National Integrated Protected Areas System
PAMB	-	Protected Area Management Board
PAO	-	Provincial Agriculture Office
PCG	-	Philippine Coast Guard
PCRA	-	Participatory Coastal Resource Assessment
PO	-	people's organization
PPDO	-	Provincial Planning and Development Office
PSWDO	-	Provincial Social Welfare and Development Office

PTA	-	Philippine Tourism Authority
SB	-	*Sangguniang Bayan*
SP-Province	-	*Sangguniang Panlungsod*
TOP	-	Technology of Participation
SWOT	-	Strengths, Weaknesses, Opportunities, Threats
USAID	-	United States Agency for International Development

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Foreword

Department technical personnel have reviewed and fully endorse the *Philippine Coastal Management Guidebook Series* as an essential information guide to assist in improving the status of Philippine coastal resources and their management. This series of guidebooks strengthens our capacity to enhance coastal management efforts in the country. It clearly identifies roles and responsibilities for all concerned departments, agencies, and organizations in this collaborative coastal environmental management effort.

Let us enjoin all users of these guidebooks to collectively work for sustainable management of our coastal resources for the economic and environmental well-being of our country!

Department of
Environment and
Natural Resources

Department of
Agriculture - Bureau of
Fisheries and Aquatic
Resources

Department of the
Interior and Local
Government

Preface and orientation to this guidebook series

This book is the fourth in a series of eight guidebooks to coastal management in the Philippines. The titles and basic content of these eight books are shown next page. The series covers major topics concerning all aspects of coastal management in the Philippines and follows a theme of local government perspective, while highlighting the role of various stakeholders and other factors that affect coastal environments.

This fourth book, "Involving Communities in Coastal Management", addresses the importance of community involvement and support in coastal management efforts. It begins with a description of who the community is and how partnerships between the local government units, nongovernment organizations, and communities can be established. Community organization and mobilization is a critical process that is required to improve the capacity of the local community to participate in the coastal resource management planning process. This increases ownership of coastal management efforts at the community level and therefore strengthens sustainability mechanisms. The role of the community organizer in facilitating coastal resource management is described in Chapter 3. Participatory tools and approaches that can be used to involve the local community in each phase of the planning process are described in the Chapter 4. A toolbox of specific approaches that the local government, nongovernment organization, and community organizer can bring to the community is provided. The important role of information, education, and communication in raising public awareness of the importance of coastal resource management and developing a critical mass of coastal leaders is described in the Chapter 5. Chapter 6 provides an overview of factors contributing to the sustainability of coastal resource management efforts at the local level.

Coastal management is the theme of these books because of the urgent need to manage and protect the coastal resources of the Philippines. These resources are known to be incredibly valuable and important to the country's security. If the management problems are not addressed soon using integrated approaches, the environmental and food security of the country will be further threatened. These guidebooks lay out a process to address deteriorating coastal environments, loss of resources, increasing poverty, and to reverse current trends. They are holistic in approach while offering many specific solutions that are easy to implement. Read, comprehend, and make use of these guidebooks!

Philippine Coastal Management Guidebook Series—Titles and contents

1. **Coastal Management Orientation and Overview**	◆ Definitions and trends in coastal management ◆ Issues, resources, and impacts of concern in the Philippines ◆ Introduction to the coastal management process in the Philippines ◆ Guidebook series and how to use it
2. **Legal and Jurisdictional Framework for Coastal Management**	◆ All laws pertaining to coastal management ◆ All jurisdictions affecting coastal areas and resources ◆ The roles and mandates of government agencies
3. **Coastal Resource Management Planning**	◆ Coastal management planning process from local government perspective ◆ Key steps and procedures in the process ◆ How to develop the coastal management plan
4. **Involving Communities in Coastal Management**	◆ Importance of involving coastal communities ◆ Community organization process and participatory approaches ◆ Information, education, and communication techniques ◆ Sustainability of community-based coastal management
5. **Managing Coastal Habitats and Marine Protected Areas**	◆ The coastal marine ecosystem and how it functions ◆ Management considerations of critical coastal habitats ◆ Creating and managing marine protected areas
6. **Managing Municipal Fisheries**	◆ Municipal waters and legal jurisdiction for fisheries management ◆ Planning for fisheries management ◆ Management interventions and how to apply them
7. **Managing Impacts of Development in the Coastal Zone**	◆ Roles of planning and environmental impact assessment ◆ Environmental guidelines for coastal development ◆ Government role and mandate to prevent development impacts ◆ Managing coastal and marine pollution
8. **Coastal Law Enforcement**	◆ Major issues in effective law enforcement in coastal management ◆ Roles and responsibilities of major law enforcement groups ◆ Initiatives to improve fishery law enforcement

Glossary of terms

Advocacy

Various strategies for influencing decision-making within organizations, government and private sector groups which can include lobbying, social marketing, public education activities, community organizing, media campaigns, signature campaigns, and other techniques.

Brainstorming

A facilitated group discussion whereby members are encouraged to share their ideas about a particular topic (e.g., Why are reefs degraded?), the main purpose of which is to get participants to react to the topic and express ideas in a creative fashion and provide opportunity to gather diverse opinions and generate new ideas, and to learn.

Coastal Resource Management (CRM)

The participatory process of planning, implementing, and monitoring sustainable use of coastal resources through collective action and sound decision-making.

Collaborative Management or Co-management

A collaborative process of managing coastal resources whereby governments (especially local governments) and communities share responsibility for coastal resource management and work together in a dynamic partnership. Government usually retains responsibility for overall policy and coordination functions while local community plays a large role in day-to-day management (White *et al*. 1994)

Community

A unified body of individuals, often of different economic classes, clans or family groups, ethnic groups, gender groups, and other interest groups bound by a geographical area and sharing elements of common life such as customs, manners, traditions, and language. Community can also refer to individuals and groups linked by common policies and interests not necessarily in a similar geographical area.

Community Organization

The process of bringing together members of a community and empowering them to address common concerns and problems and to identify community goals and aspirations.

Community Organizer	Person responsible for facilitating the organizing process, such as initiating group discussions, managing group dynamics and conflicts, building capabilities of leaders and groups, facilitating problem solving processes, and other outcomes required for group and community organizations to become functional.
Community-based Coastal Resource Management (CB-CRM)	The process in involving local resource users and community members in active management and taking full responsibility for the process of the coastal resource management planning, implementation, monitoring, and evaluation.
Community-based Forest Management Agreement (CBFMA)	A production sharing agreement entered into between a community organization and the government (Department of Environment and Natural Resources), to develop, utilize, and manage and conserve a specific portion of forestland (mangrove forests in the coastal areas) consistent with the principles of sustainable development and pursuant to an approved Community Resource Framework Plan.
Core Group	The group that a community organizer works with at the initial stages of his/her organizing work in the community. Members of the core group are representatives of several sectors, clusters, or groups in the community who are available and willing to work to initiate activities for CRM and who can influence other community members to get involved.
Empowerment	The development of the ability (power) to exercise management control over resources and institutions, to own livelihood, and secure sustainable use of resources upon which communities depend.
Focus Group Discussions	Discussions with four to eight selected members of a community who are chosen for their knowledge and involvement in a specific topic. The group facilitator guides the discussion to focus on gathering information, clarifying community perceptions, and building consensus for a recorded outcome.
Information, Education and Communication (IEC)	In CRM, IEC is a process whereby knowledge is imparted to coastal communities to increase their awareness, understanding, and appreciation of the coastal environment and its importance. The goal of IEC in CRM is to create a critical mass of the population who are environmentally literate, adhere to environmental ethics, and are engaged in some form of environmental action or advocacy.

Integrated Coastal Management (ICM)	Those activities that achieve sustainable use and management of economically and ecologically valuable resources in coastal areas that consider interaction among and within resource systems as well as interaction between humans and their environment (White and Lopez 1991). ICM encompasses CRM being a broader set of activities that emphasize integration with government, nongovernment and environmental realms.
Participatory Coastal Resource Assessment (PCRA)	Method of resource assessment wherein local communities actively participate in gathering and analyzing environmental, ecological, social, and economic information about an area. In PCRA, resource assessment is done from the perspective of local resource users.
Problem Tree	Diagrammatic tool that can be generated with the community and government partners to identify core or underlying problems and their root causes and effects (IIRR 1998).
Semi-structured Interview	Method of obtaining community input with the use of an interview guide mostly composed of open-ended and probe questions done in a conversational manner either with an individual or group.
Stakeholder Analysis	Method by which people generate insights into the characteristics of individuals and/or groups and their respective relationship to a particular resource or project (IIRR 1998).
Stakeholders	Individuals or groups involved, interested in or impacted (positively or negatively) by coastal resources and their uses. These may include members of the community, local fisherfolk, local business sector, NGOs, representatives of government agencies, and others.
SWOT Analysis	SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis is a strategic planning tool that is used to assess the community or organization's capability to carry out an activity.
Transect Diagram	A representation of a geographical cross-section of the coastal ecosystems or habitats ranging from deep water to beaches, mangroves, and extending to settlement areas. The horizontal axis of the transect represents habitats. Along the vertical axis are list resources, economic opportunities and uses, as well as problems associated with each habitat.
Venn Diagram	A tool for illustrating relationships and relative influence of institutions, issues, or problems related to an area or project.

chapter 1

Introduction

Integrated coastal management (ICM) is not just about managing coastal resources, but also managing the human element: people in the communities that impact and depend on resources in the coastal zone. People have a significant impact on coastal resources in their day-to-day activities. They make decisions about how coastal resources will be utilized and they receive many benefits from coastal resources. People stand to lose the most if coastal resources are not managed in a sustainable way, therefore, their participation in the planning and implementation of coastal resource management efforts is critical.

Unlike land resources, marine resources are not easy to fence off and moreover are often considered as "common property" and available to all. Protection and management of these resources is extremely difficult without the support and cooperation of the stakeholder community. The local community members who are dependent on the coastal resources are often the most committed and conscientious trustees of those resources if they receive direct benefits from their efforts (Pomeroy 1994; White *et al.* 1994). Coastal resource management (CRM) efforts will fail without the support and involvement of the resource users.

This guidebook describes the process of how resources can be managed by coastal communities and their local governments. This process requires identifying stakeholders; facilitating community organization; building partnerships between government, nongovernment organizations (NGOs), private sector, and communities; and involving the community in the CRM planning, implementation, monitoring, and evaluation process. Information, education, and communication (IEC) initiatives are also important throughout the process to increase public awareness and to promote management strategies.

THE IMPORTANT ROLE OF COMMUNITIES IN THE MANAGEMENT OF PHILIPPINE COASTAL RESOURCES

Management of resources by national-level agencies has failed to curtail the degradation and overexploitation of coastal resources that is widespread in the Philippines (White and Cruz-Trinidad 1998). Current conditions of coastal resources in the Philippines indicate a high level of degradation primarily from destructive fishing practices, overexploitation, siltation, pollution, and habitat loss. These problems result from a *de facto* open access system, lack of an integrated framework for coastal resource protection at the national and local level, low level of public awareness, and economic hardships in coastal communities (*Guidebook 1: Coastal Management Orientation and Overview*).

Coastal resource management (CRM) is best accomplished by a participatory process of planning, implementing, and monitoring sustainable uses of coastal resources through collective action and sound decision-making. Community-based or co-management approaches to coastal resource management are based on the principle of involving local coastal communities in managing the resources upon which they depend. By involving resource users and focusing on local-level responsibility, the communities have more ownership of the resources and more incentives to successfully manage them. If community-level management is to be effective, the benefits to the community have to be real and equitable (White *et al.*1994; IIRR 1998).

The current degraded condition of many coastal areas, low level of public awareness, and the socioeconomic situation in coastal communities present challenges to successful CRM. It is important to recognize that the local fishers and community members are the real day-to-day managers of coastal resources and that organizing village level groups to assist in CRM efforts is an important role of the local government (Alcala and Vande Vusse 1994). The recent decentralization of authority and increasing local government sovereignty over resources presents challenges in institutional capacity, training, and funding to support local-level management. These challenges will be best met by a concerted effort to involve local communities in resource management and to form effective partnerships between government units, communities, NGOs, and academe as discussed in *Guidebook 3: Coastal Resource Management Planning*. Being clear on who constitutes the "community" is crucial in meeting this challenge. Active community participation in CRM has proven successful in many areas in the Philippines and numerous donor projects and local initiatives have been based on participatory approaches that have empowered local communities to manage their own resources (Savina and White 1986; White *et al.* 1994; Ferrer 1993; Polotan-de la Cruz 1993; Pomeroy 1994; Christie and White 1997).

COASTAL MANAGEMENT CONCEPTS

The trend in coastal management is to become more integrated across habitats and sectors and more focused on community-based or local-level management rather than centralized approaches (Christie and White 1997; Cicin-Sain and Knecht 1998). The concepts of integrated coastal management (ICM), community-based management, and co-management were discussed in *Guidebook 1: Coastal Management Orientation and Overview* and *Guidebook 3: Coastal Resource Management Planning* and are summarized here.

Integrated coastal management

Because of the complexity of the coastal environment and the many issues that must be addressed, coastal management must be integrated across habitats and include land-based activities that affect the coastal zone, as well as integrated among government units and sectors. Integrated coastal management (ICM) aims to achieve sustainable use and management of economically and ecologically valuable resources in coastal areas and considers interaction among and within resource systems as well as those of humans and their environment (White and Lopez 1991). It

is accomplished by cross-sectoral planning and the design of institutional processes to ensure that decisions are consistent with the national legal and jurisdictional framework for coastal management (see *Guidebook 2: Legal and Jurisdictional Framework for Coastal Management)* overall coastal policies for the nation ("top-down" approaches). ICM is multipurpose in nature and addresses linkages between and implications of development, human activities, biophysical processes, and sectoral activities in inland areas, coastal lands, coastal waters, and offshore waters (Clark 1996; Cicin-Sain and Knecht 1998). ICM, when effective, provides a supporting framework for more localized management of coastal resources through community-based and collaborative approaches.

Community-based coastal resource management
In contrast to centralized planning and authority, community-based coastal resource management (CB-CRM) approaches involve local resource users and community members in active management and responsibility for coastal resources. CB-CRM implies that individuals, groups, and organizations have a major role, responsibility, and share in the resource management and decision-making process. CB-CRM is based on the premise that local users, if empowered to have responsibility for their resources, will act responsibly and in their own best interest to manage the resources in sustainable ways and enforce community-derived rules. By taking responsibility for monitoring and enforcement, the community has a sense of ownership and power over local resource conditions. CB-CRM approaches evolved in response to the failure of more centralized approaches and the recognition that local management (or "bottom-up" approaches) may be more effective in many cases (Christie and White 1997). Community-based management is consistent with the tenets of co-management described below since government is always involved in the management process.

Collaborative or co-management of coastal resources
Co-management (or collaborative management) is, in reality, how management is usually done and is considered to incorporate features of "top-down" and "bottom-up" approaches in a collaborative process whereby governments (especially local governments) and communities share responsibility for CRM and work together in a dynamic partnership. Co-management is based on the participation of all individuals and groups that have a stake in the management of the resource. Social, cultural, and economic objectives are an integral part of the management framework. Government retains responsibility for overall policy and coordination functions while the local community plays a large role in day to day management (White *et al.* 1994). In the Philippines, the Local Government Code (LGC) devolves authority for CRM to the local government level and there is opportunity for more collaboration between local government units (LGUs), NGOs, and people's organizations (POs).

Co-management also creates the opportunity to take advantage of technical and scientific knowledge (that often comes from outside the community) and local or traditional knowledge of those within the community. Technical and scientific knowledge brings the rigor of the scientific

method and expertise from government agencies and research institutions. Local knowledge brings site-specific and historical information, customary practices, and traditional values that add local expertise and an important social dimension to the CRM planning process.

LOCAL LEVEL AUTHORITY FOR CRM

The role of the community in CRM has been amplified in recent years due to the concerted effort to decentralize responsibility and authority for resource management from the national to the local level. The implementation of the Local Government Code (LGC) of 1991 gave local government units (LGUs) more power and authority to manage their coastal resources and to implement CRM programs (*Guidebook 3: Coastal Resource Management Planning*). Decentralization has changed the institutional framework for ICM implementation from centralized national-level planning and implementation to the local level and has allowed for a greater role for community-based approaches. The primary mandate for managing municipal waters from the shoreline to 15 km offshore is devolved to local government. LGUs also have the authority to limit access to municipal coastal resources by non-residents. The LGC encourages collaboration and partnership between LGU and POs and NGOs, thus supporting co-management.

Table 1. Portions of the LGC encouraging partnership with community-level organizations

Section 34: "role of people's and non-governmental organizations – local government units shall promote the establishment and operation of people's and non-governmental organizations to become active partners in the pursuit of local autonomy"

Section 35: "linkages with people's and non-governmental organizations – local government units may enter into joint ventures and other such cooperative arrangements with people's and non-governmental organizations to engage in the delivery of certain basic services, capacity-building and livelihood projects, and to develop local enterprises designed to improve productivity and income, diversify agriculture, spur rural industrialization, promote ecological balance, and enhance the economic and social well-being of the people"

Section 36: "assistance to people's organizations and non-governmental organizations – a local government unit may, through its chief executive and with the concurrence of the *sanggunian* concerned, provide assistance, financial or otherwise, to such people's and non-governmental organizations for economic, socially-oriented, environmental, or cultural projects to be implemented within its territorial jurisdiction"

With the passage of the 1998 Fisheries Code (RA 8550), many laws and administrative orders related to CRM have been clarified *(Guidebook 2: Legal and Jurisdictional Framework for Coastal Management)*. While ordinances generated by LGUs are subsidiary to higher laws and must be consistent and not contradictory with those national laws, local ordinances provide a powerful tool for local management.

The Fisheries Code consolidates existing laws and attempts to implement the constitutional mandates in favor of subsistence fishermen. The 1987 Constitution has a provision, "The state shall protect the rights of subsistence fishermen, specially of local communities, to the preferential use of communal marine and fishing resources, both inland and offshore….The state shall also protect, develop, and conserve those resources" (Section 7, Art. XIII). The Code limits open access, gives priority to municipal fisherfolk, and emphasizes people empowerment and integrated coastal management. Increased participation in the decision-making process is also provided through the Fisheries and Aquatic Resources Management Councils (FARMCs) that have become a venue for collaboration between the fisherfolk and the LGU. FARMCs can be formed at both the *barangay* and municipal or city levels.
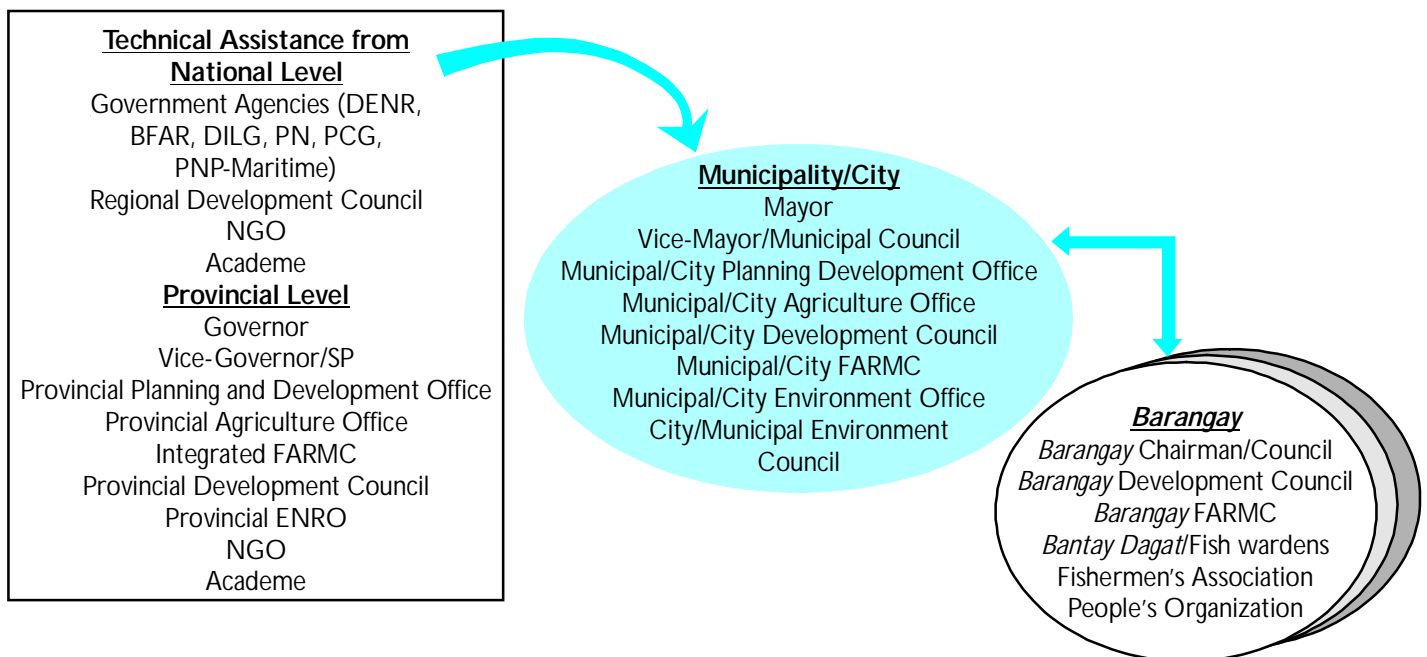
Figure 1. Key participants in municipal integrated coastal management units

FRAMEWORK FOR COMMUNITY PARTICIPATION IN CRM

Some of the goals of strong community involvement in coastal management include resolving resource tenure or access issues, increasing capability within the community, promoting environmental conservation, and promoting sustainable use of resources. Equity, respect for traditional knowledge, gender fairness, and empowerment of local resource users are also important components of a participatory community approach (Figure 2).
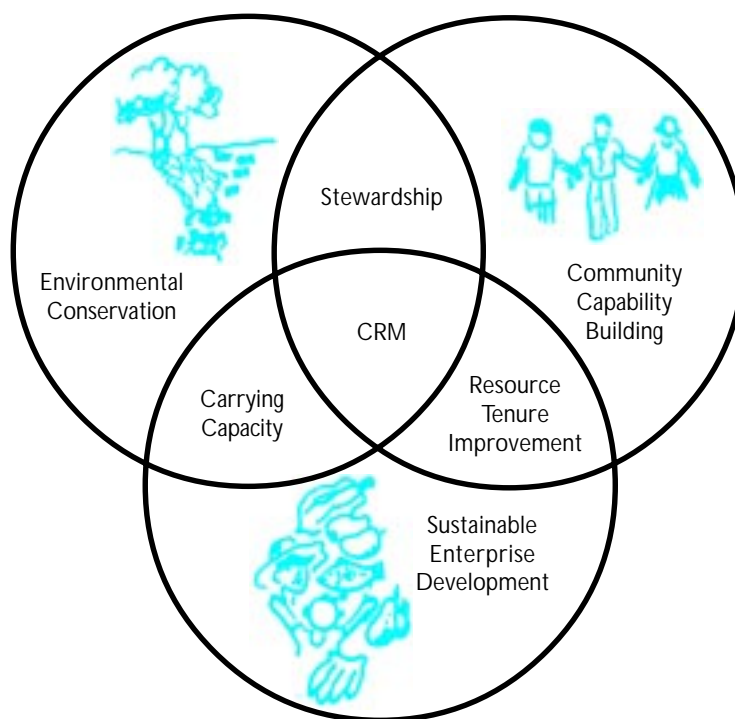
Figure 2. Components of community-based coastal resource management (adapted from IIRR 1998).

Community-based approaches strive for active participation on the part of the local community in CRM and are flexible enough to allow for each community to develop management strategies that meet its needs. Tables 2 and 3 identify qualities and guiding principles of community-based approaches.

Table 2. Qualities of community-based approaches (after Ferrer 1993).

- More effective and equitable than centralized management;
- More community responsibility for monitoring and enforcement;
- Strong sense of ownership and responsibility on the part of the resource users;
- Flexible and adaptive to meet changing conditions;
- Higher degree of acceptance and compliance with plan due to local participation; and
- Larger role for local indigenous knowledge and expertise.

Table 3. Guiding principles of community-based approaches (after Ferrer 1993).

- Balancing growth and equity
- Sustainable development;
- Priority on sustainable food production;
- Strengthening organizational capabilities; and
- Promotion of gender-sensitive development.

Merely identifying stakeholders is not sufficient to ensure that they will be involved in the coastal resource planning process. Participation means taking part in an activity. True participation requires that the local community has some authority in the management of coastal resources and that the community concerns are incorporated in the CRM planning process. Participation leads to empowerment as community members learn about resource management issues and are involved in finding and implementing solutions to coastal resource issues in their communities. There is a continuum of public involvement in the CRM planning process that is reflected in the typology of participation in Table 4.

Participation is a learned skill on the part of individual community members and depends on their ability to confidently articulate their concerns and visions and take an active role in CRM efforts. The true level of participation also depends on the ability of community members to negotiate with the political and economic interests involved and the political will of the government to act in the long-term interest of the people.

The community organizer (CO) is a person who can work with local community members to increase their capacity to actively participate while not detracting from the community role in any

Table 4. Typology of participation *(from IIRR 1998).*

Typology	Description
1. Passive participation	People participate by being told what is going to happen or has happened. It is a unilateral announcement by the administration or project manager, without listening to people's responses.
2. Participation by information giving	People participate by answering questions posed by extractive researchers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings.
3. Participation by consultation	People participate by being consulted, and external agents listen to their views. Such a consultative process does not usually concede any share in decision-making.
4. Participation for material incentives	People participate by providing resources, such as labor or information, in return for food, cash, or other material incentives.
5. Functional participation	People participate by forming groups to meet predetermined objectives related to the project. Such involvement often occurs after major decisions have been made. These groups tend to be dependent on external initiators and facilitators.
6. Interactive participation	People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self-mobilization	People participate by taking initiatives independent of external institutions to change systems. They develop contracts with external institutions for resources and technical advice they need, but retain control over how resources are used.

manner (see Chapter 3); the LGU or NGO can assist the community in identifying an appropriately trained individual to serve as the CO in the community.

An analysis of individuals, groups, and institutions that can influence plan success should be conducted to determine the best approach to involve them in the CRM planning process. This should include an evaluation of:

- Characteristics of the individual or group (religious, cultural, and economic factors);
- Position of the individual or group (status, function, organizational structure);
- Current situation of the individual or group and the problems they face;
- Strengths and weaknesses of the individual or group (knowledge, commitment, ownership, dependence);
- Interests, needs, goals of the individual or group;
- Expectations and fears of the individual or group;
- Capabilities and skills of the individual or group;
- Availability of resources of group or institution; and
- Goals and mandates of the institution or organization in relation to coastal resource issues.

Throughout the CRM process it is important to assess the level of participation. At what stages in the process are people participating? Who is participating – is it just the community leaders or are many individuals involved? To what extent does an individual in the community have control over decisions related to CRM? Finally, are there significant political, social, or administrative obstacles to successful participation? (IIRR 1998)

A framework for community involvement in CRM is shown in Figure 3 and indicates the basic inputs required in effecting desired changes in resource management. With no leadership or commitment to effect change, existing conditions will remain, or more likely, get worse over time. A strong commitment to change existing conditions, understanding of the problem, and leadership are required to help communities initiate the process required to change their situation. Making the decision to go down the path towards better coastal management takes energy, hard work, and time but will lead to improved condition. Communities need to envision a better future, become organized, participate in planning and implementation, and have a higher awareness of environmental issues.

The major activities that have to be conducted to involve communities in the CRM process are briefly described below and discussed in the following chapters. It is important to note that these activities are not conducted separately but are carried on simultaneously in an integrated fashion as depicted in Figure 4.
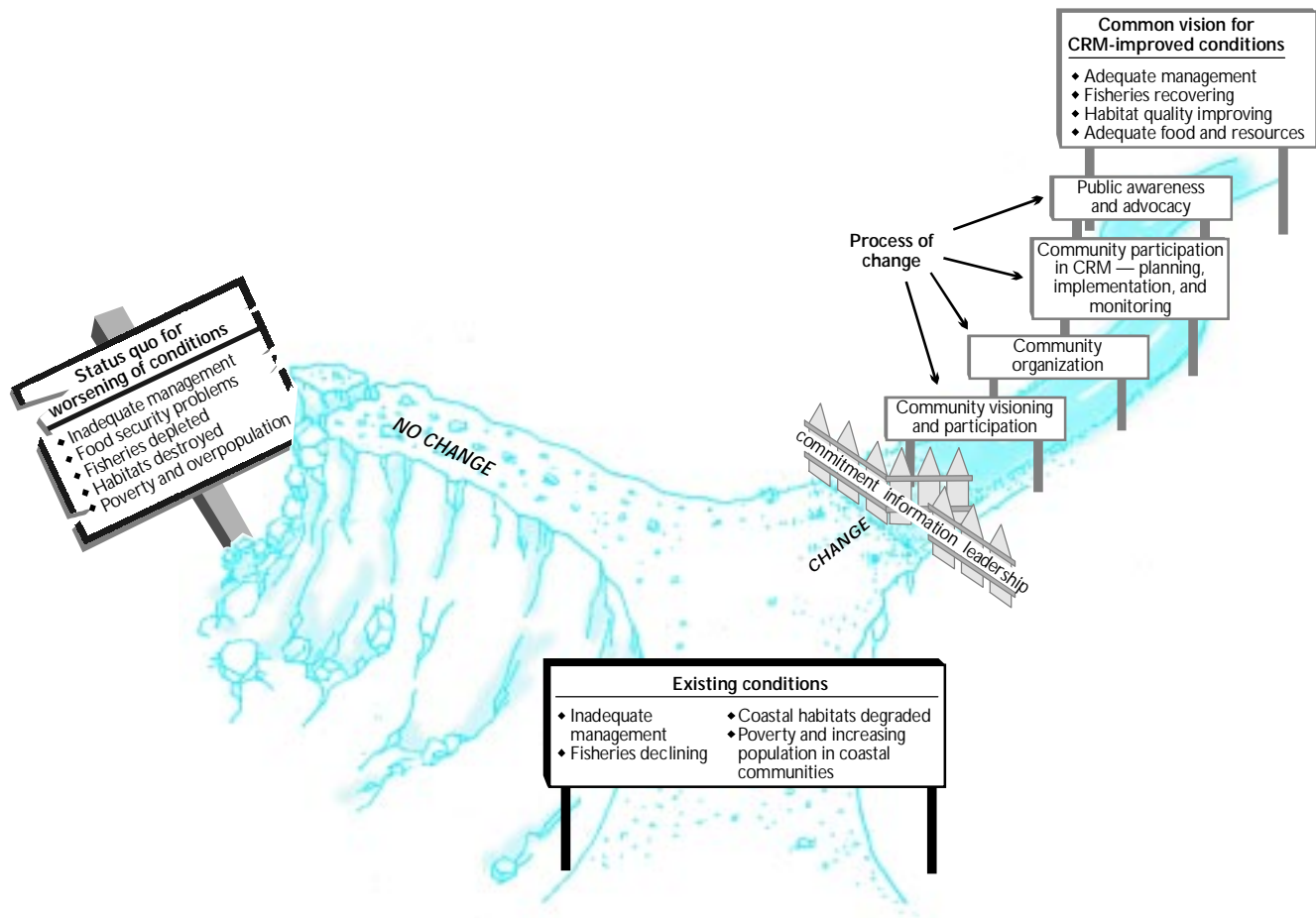
*Figure 3.   Required inputs for establishing a common vision for
coastal resource management at the community level.*

- ◆ **Identifying Stakeholders and Forming Partnerships:** The first step in community-based or co-management approaches is to identify the key stakeholders and potential participants in the CRM process. The identification of key stakeholders and participants is a necessary step before a participatory situational analysis could be conducted as basis for the preparation of the plan. Identifying key participants and forming partnerships are discussed in Chapter 2 and are also integral to the community organization and planning processes described in Chapters 3 and 4.

- ◆ **Community Organization and Mobilization:** Stakeholders are more accessible and have more opportunities to be involved if they are organized. Organization of the community allows rapid integration into the planning process, as well as a forum for feedback and efficient resolution of issues. The process by which a CO can help to organize and mobilize a community is discussed in Chapter 3.

- ◆ **Community Participation in the Planning Process:** Once community organization has been initiated, the community should be better able to participate in the planning process described in *Guidebook 3: Coastal Resource Management Planning*. The community role and opportunities for participation in each of the planning steps are described in Chapter 4.
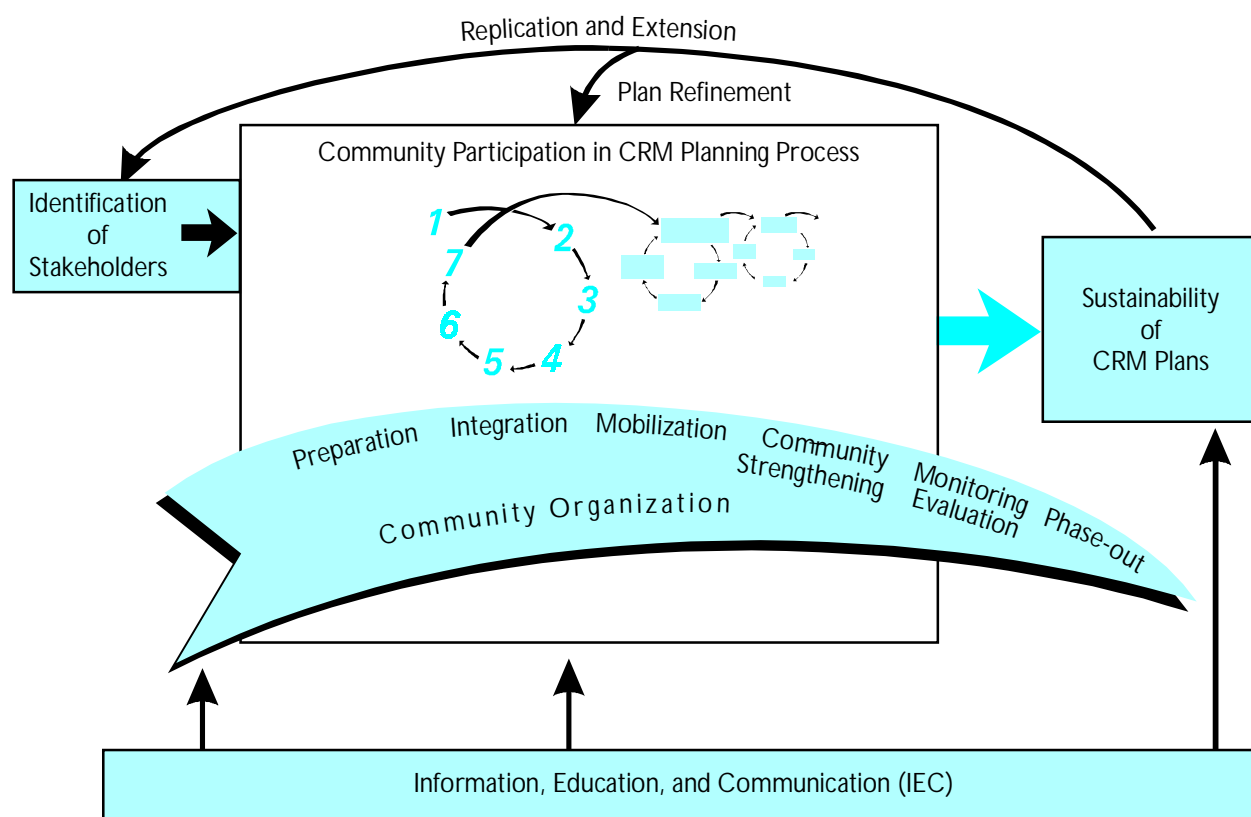
Figure 4.   Overview of important components of CRM at the community level.

This section also describes the participatory tools used to promote community involvement. At the local level, the CRM process begins with the compilation of information in a coastal environmental profile and database that is used as the basis for prioritizing issues and formulating goals. CRM planning and implementation are facilitated through community participation and the development and adoption of a CRM plan. The CRM plan is institutionalized by a local ordinance and CRM implementation proceeds by conducting CRM interventions and best-management practices. Monitoring and evaluation provide feedback loops that serve to update the database and refine the plan (White *et al.* 1994).

- ◆ **Information, Education, and Communication (IEC):** To raise public awareness and to promote the goals and strategies of CRM plans, it is essential to have IEC initiatives throughout the CRM planning and implementation process. IEC approaches and the importance of raising environmental awareness during the community organization and CRM planning process are discussed in Chapter 5.

ALAN WHITE

Management efforts to protect coastal resources have to involve the local communities and resource users.

TIONI PARRAS

Coastal fishing communities face seriously declining fisheries. The answer is not to increase pressure on the resource by allowing more fishing but to reduce fishing pressure by creating alternative livelihoods.

chapter 2

Who are the stakeholders?

Stakeholders in CRM can be defined as individuals or groups involved, interested in, or impacted (positively or negatively) by coastal resources and their uses. In coastal communities, stakeholders may include members of the community, local fisherfolk, and members of fishing cooperatives, women's groups, local business sector, NGOs, and representatives of government agencies. There may be many different kinds of stakeholders that must be considered in the CRM process. Identification of stakeholders is an inventory of all persons, groups, and subgroups, organizations and institutions that will be involved in any way in the CRM project or planning process. Not all stakeholders though have the same "stake" or level of interest in coastal resources and thus some may be less active or not active at all.

WHO IS THE COMMUNITY?

The community is not an undifferentiated whole, but made up of people of different economic classes, clans or family groups, ethnic groups, gender groups, and special interest groups. Every community is different and includes many groups involved directly or indirectly with coastal resources such as subsistence-level fishers, commercial fishers, farmers, and those involved in transportation and tourism. Efforts to involve the community should recognize and respect these different groups and the diversity of groupings within the community to promote involvement of the whole community. A geographical community is defined as all the people in a specific geographic area, while a functional community is defined as a group of individuals and families who may not be necessarily living in a compact and contiguous geographical area but who share significant elements of common life as indicated by customs, manners, traditions, and language (Marasigan *et al.* 1992). An example of a functional community could be those sectoral groups who share common concerns and practices like the fisherfolk and farmers. Both geographical and functional communities should be considered in the CRM process.

In a larger sense, people who live in the area and depend on coastal resources, representatives of government, and representatives of NGOs are all part of the community and play key roles in planning and implementing CRM (see *Guidebook 3: Coastal Resource Management Planning*). All of these community members who have some stake in the coastal zone or coastal resources are important, but not always equal, participants in the CRM process.

KEY PARTICIPANTS IN CRM

The key participants in CRM at the local level include:

- **Community-level partners:** Community members who are residents of the area who directly or indirectly use or impact the resources. Community members are often represented by community level organizations such as POs and local NGOs.
- **Government partners:** LGUs and representatives of regional or national agencies that have functions related to the resources in the area.
- **Resource management organizations**: Collaborative resource management boards or councils that include government and community representation.
- **Other partners**: National and international NGOs, aid agencies, and research or educational institutions contribute important technical advice or funding.

Community-level partners

The local community is made up of individuals that have varied awareness of and interest in CRM; some level of community organization is necessary to foster substantive participation in CRM. Due to their importance as users of coastal resources, local fishermen are usually very important participants. The local business sector, landowners, churches, and religious organizations are also potential participants. In general, the role the community can play in CRM includes:

- Identification of issues and concerns of the community;
- Participation in research and data gathering;
- Participation in the planning and implementation of CRM efforts;
- Community-based enforcement and self-regulation; and
- Monitoring and evaluation.

People's Organizations (POs): A variety of groups and organizations operating at the community level may be considered as either representing important coastal resource users and/or as organizations that may be utilized to reach out to the broader coastal community. POs are local community groups, often focused on social, economic, cultural, or gender specific issues. While POs may not be officially recognized or incorporated they can play a significant role in the community organization process by bringing together groups with similar interests. POs could also serve as pressure groups to lobby for changes in or development of policy. Efforts should be made to increase the role of POs in the coastal management process (Table 5).

Table 5. Increasing the role of POs in local government (Mendoza-Flores 1994).
◆ Organization and mobilization of POs;
◆ Formation of municipal/provincial federations of POs;
◆ Registration of POs;
◆ Accreditation of POs at *Sangguniang Panlalawigan* or *Sangguniang Bayan*;
◆ Membership of POs in local development councils;
◆ Capability building of POs; and
◆ Critical collaboration and participation of POs and LGUs.

Local NGOs: Local NGOs, especially those with an environmental or social development focus, are at the forefront of community-level groups that can advocate for the community and foster participation. NGOs usually have registered with the government and are officially recognized legal entities. The role that NGOs can play includes community organizing, training, alternative livelihood development, research, education, and advocacy. Local NGOs can help to provide structure and play a facilitation role in the local community.

Cooperatives: Cooperatives, such as fishery cooperatives, are usually focused on economic activities. Cooperatives that utilize coastal resources in their economic activities are thus important stakeholders that should be involved in the planning process.

Interest and civic groups: With the increased level of awareness on and concern for the environment, civic organizations are starting to play an active role in environment advocacy and education.

Churches, mosques, and religious organizations: Many people in coastal communities have strong ties to religious organizations and these groups can play a role in community outreach, conflict resolution, facilitation, dissemination of information, and fostering participation.

Local businesses: Local businesses such as buyers or *compradors*, fish processors, tourism developers, foreshore and fishpond lease holders, and shipping companies all utilize and profit from the resources in the coastal zone and have a strong economic stake in resource management issues. Local business can be the focus of marketing incentives to manage resources more sustainably, and can provide funds or incentives to local resource users.

Government partners

A variety of institutions have jurisdiction over coastal resources; however, at the local level, the LGU has the mandate to manage land and water resources. National government agencies should provide technical assistance to LGUs in support of local initiatives as well as implement national CRM activities or provide inputs for modification or formulation of policies or regulations as mandated under national laws and policies as outlined in Table 6.

Table 6. Some important functions for government units (from *White* et al. *1994*).

- ◆ Create political space and equitable forums for dialogue by bringing stakeholders to the table and provide legitimacy and authority to implement plans;
- ◆ Facilitate the formulation of resource management plans by serving as facilitators to help communities define policies;
- ◆ Coordinate program implementation and ensure that actions of various groups are compatible;
- ◆ Provide incentives for collective action and self-regulation by providing benefits to the participants such as public recognition or market incentives;
- ◆ Enforce regulations either directly or by delegating authority and acting when local enforcement is not effective;
- ◆ Resolve conflicts and provide arbitration when needed; and
- ◆ Provide technical and financial assistance to communities to promote resource management goals.

Local Government Units (LGUs): The LGUs correspond to four classifications of local governance: provincial, city, municipal, and *barangay* governments. The 1991 LGC empowers the LGUs to create their own CRM plans and gives them authority to obtain input from local communities, research institutions, and NGOs. Coastal LGUs have become planners and implementers of their own CRM programs. The main roles the LGU plays include:

- ◆ Institutionalizing the CRM planning, implementation, and monitoring process for municipal waters and providing technical assistance;
- ◆ Allocating budget and technical staff for CRM;
- ◆ Establishing revenue generating mechanisms for cost recovery;
- ◆ Engaging in multisectoral and inter-LGU collaboration for CRM;
- ◆ Approving local regulations and conducting enforcement; and
- ◆ Supporting community involvement in management.

National Government Agencies: While the local government units have primary responsibility for coastal resource issues in their jurisdiction, representatives of national agencies have important technical expertise and large-scale planning perspectives. The role of the national agencies includes:

- ◆ Financing;
- ◆ Technical assistance;
- ◆ Policy reforms/agenda;
- ◆ Research; and
- ◆ Training, education, and outreach.

National agencies with some responsibility for coastal resources include DENR, BFAR, DILG, and others (see Table 7) and are described in *Guidebook 2: Legal and Jurisdictional Framework for Coastal Management*.

Table 7. Matrix of partners in CRM programs.

Potential Participants	National	Provincial and Multi-municipal	City/Municipal	*Barangay*
Government	DENR	SP	SB	*Barangay* Council
		Governor	Mayor	*Barangay* Captain
	BFAR	Provincial Development Council	Municipal Development Council	*Barangay* Development Council
	DILG	IFARMC	MFARMC	BFARMC
	DOTC		Agriculture Office	*Bantay Dagat*
	DND-PCG	PPDO	Planning and Development Office	
	DSED	PSDWO	MSDWO/CSWDO	
	DOST-PCAMRD	DAO	Environment Office	
Community	National POs	Provincial POs		Local fishers, POs
	Alliances/Coalitions	Alliances/Coalitions	Parish (church)	Women's groups
		Diocese	Mosques	Churches, cooperatives
Other Participants	Universities/Colleges	Universities/Colleges	Universities/Colleges	Local schools
	NGOs	NGOs	NGOs	NGOs
	Donor Projects	Donor Projects	Donor Projects	Business Sector
	Business Sector	Business Sector	Business Sector	

Resource management organizations

Philippine law encourages the formation of collaborative resource management councils that have government and community representatives. The organizations are important partners in local CRM efforts.

Protected Area Management Boards (PAMBs): In coastal areas where a marine protected area has been established under the National Integrated Protected Areas System (NIPAS) Act, a PAMB is established that includes a Regional Executive Director of DENR and representatives from the regional government, the municipal government, each *barangay* in the area, each tribal community, at least 2 representatives from NGOs and local community organizations, and may include representatives from other departments or national agencies. PAMBs, as a government and community management council focused on a specific marine area, should be involved in other local coastal area management issues as needed and may represent an important source of technical expertise to the local government and community.

Fisheries and Aquatic Resources Management Councils (FARMCs): Under the Fisheries Code (RA 8550), a Municipal FARMC (MFARMC) is formed to serve in an advisory capacity to the local municipal government. MFARMCs assist in planning, implementation, and enforcement of fisheries laws and regulations in municipal waters. The MFARMC helps prepare the Municipal Fishery Development Plan that is an important component of an overall CRM plan. The MFARMC is composed of the Municipal Planning and Development Coordinator, a Chairperson

from the Fishery Committee of the SB, a representative of an NGO, a representative of the private sector, and representative of the Department of Agriculture, and at least 11 fisherfolk representatives. Similarly, for multi-municipal areas such as large bays or a provincial area, integrated FARMCs (IFARMCs) can be formed. At the *barangay* level, *barangay* FARMCs play a similar role on a small scale.

Other partners
The local government and community organizers should look beyond their immediate constituencies to identify other stakeholders, technical experts, and sources of funding to assist them in the CRM process.

Research and academic institutions: A variety of research and academic institutions in the Philippines and abroad have technical expertise and experience in CRM issues that should be utilized to help with local problem-solving. Partnerships between academic institutions, local government agencies, and NGOs have proven successful in project implementation, knowledge transfer, data collection, monitoring, and evaluation.

National and international NGOs: Local NGOs or government agencies can form alliances with national and international level NGOs to bring funds or expertise to resolve specific issues at the local level and to represent the local level interests in national efforts regarding CRM.

Donor agencies: The importance of community-based coastal resource management in food security and sustainable development of the world's ocean resources has received the focus of many aid or donor agencies; these agencies may be a source of funding and technical guidance for specific local projects that meet regional or national goals for successful CRM.

Private sector: More recently the private sector, like the business community and the media have played a significant role in promoting awareness on CRM as well as in providing funding support to CRM initiatives and programs.

BUILDING PARTNERSHIPS FOR CRM
The current legal context of LGU authority for management encourages a co-management approach whereby partnerships between community, NGOs, and the government are built and a collaborative process is used in the planning process. Once the players are identified, appropriate institutional arrangements need to be established and formalized to create strong partnerships for CRM planning and implementation. Building partnerships mobilizes the resources and energies of various players and sectors toward achieving a common goal. Partnerships can be built around a single activity or issue or around strategic concerns like managing and developing a coastal area; they can be short-term or long-term arrangements.

In the Philippines, partnership building has usually been initiated by a university group, donor project, NGO, or PO. Many POs are still dependent on outside intervention to help them in the decision-making process because of a number of factors including lack of capability to engage in partnership arrangements on an equal basis or weak organizational structure. Some NGOs have either a contractual or adversarial relationship with the government that does not promote partnerships. Many local government agencies are not familiar with community-based approaches and the advocacy role for promoting community participation and identifying concerns rests on the NGOs and POs (Polotan-de la Cruz 1993). New models of PO-NGO-government partnerships are being developed to promote a co-management approach that incorporates all stakeholders in a consensus-building approach. Basic steps in initiating partnerships are shown in Table 8.

Table 8. The basic steps in initiating partnerships.

- Identification of key players or stakeholders in the community;
- Gathering background information on potential partners including interests, agenda, strengths, weaknesses, relationship to other partners;
- Dialogue with each potential partner to explain visions, goals, and strategies integral to the CRM process;
- Initial consultation-workshop with key players to introduce organizations and get feedback from participants about their interest in joining the partnership;
- Strategic planning workshop with potential partners to identify and analyze issues and problems and to agree on a framework of guiding principles;
- Establish coordinating mechanism or structure such as a council where each partner organization is represented; and
- Hold a commitment-sharing ritual and signing of a memorandum of agreement or terms of reference defining the partnership's structure and the roles and commitment of each partner.

Co-management should involve the sharing of power with the community of users and stakeholders. As in any partnership, there will always be an issue of power; the complexity of the local socio-political situation will affect power-sharing. There is a slow process of empowering the community and building the confidence and capability of POs to assume a more powerful role; NGOs and external agents play an important role in this process (Ferrer *et al.* 1996). Some questions to consider in partnership arrangements are shown in Table 9 while a framework is shown in Figure 5.

FACILITATING FORCES

complementation ⟶

leadership ⟶

information and data ⟶

sociocultural sensitivity ⟶

funded initiatives ⟶

field experiences ⟶

documenting learning ⟶

PO

CRM

GO

NGO

PRIVATE SECTOR

HINDERING FORCES

⟵ conflicting perspectives and timing

⟵ personal and organizational / institutional biases

⟵ lack of political will

⟵ sociocultural insensitivity

⟵ unfunded initiatives

| Initiating Partnerships | Strengthening / Sustaining Partnerships | Expanding Partnership Membership | Clarifying Partnership Arrangements | **GOAL: Community Empowerment** |

Figure 5. Force field analysis on building partnerships for community empowerment (after IIRR 1997).

Table 9. Questions to consider in designing partnerships.

- Who are the players and what are their roles and capabilities?
- Are the priority issues, main objectives, and key strategies and techniques clear? Do the players have a consensus on these points and are they committed to the plan?
- How will the plan be implemented?
- What will the composition of the highest decision-making body be? What are its powers and limitations of those powers? What are its responsibilities and accountability?
- Who will be the lead organization and what are its competencies and responsibilities?
- What are the competencies and responsibilities of other participating organizations?
- What are the mechanisms for monitoring and enforcement and what are the sanctions?
- Who will undertake the identified functions?
- Who is accountable to whom?
- What implementing structure will best suit the communities' CRM requirements?

A memorandum of agreement formalizes the establishment of a multisectoral CRM organization. What is important is that the organization:

- includes all agencies which have jurisdictional responsibilities over the resources, resource users who impact the resources, and others who are legitimately concerned with protecting coastal resources;
- reaches consensus about the goal of the partnership and a means of resolving conflicts is agreed upon; and
- encourages coordination, information sharing, and participation in planning (both sectoral and cross-sectoral) and implementation.

When partnerships are formalized, rights are recognized, and authority and accountability are clear, CRM planning and implementation activities will receive broader support and have a greater chance for success. Stakeholders can have different levels of involvement, as concerned constituents, advisors, or as part of a core resource management group (Figure 6).

PUBLIC/CONSTITUENCY INVOLVEMENT

TECHNICAL/RESOURCE ADVISORS

CORE RESOURCE MANAGEMENT GROUP
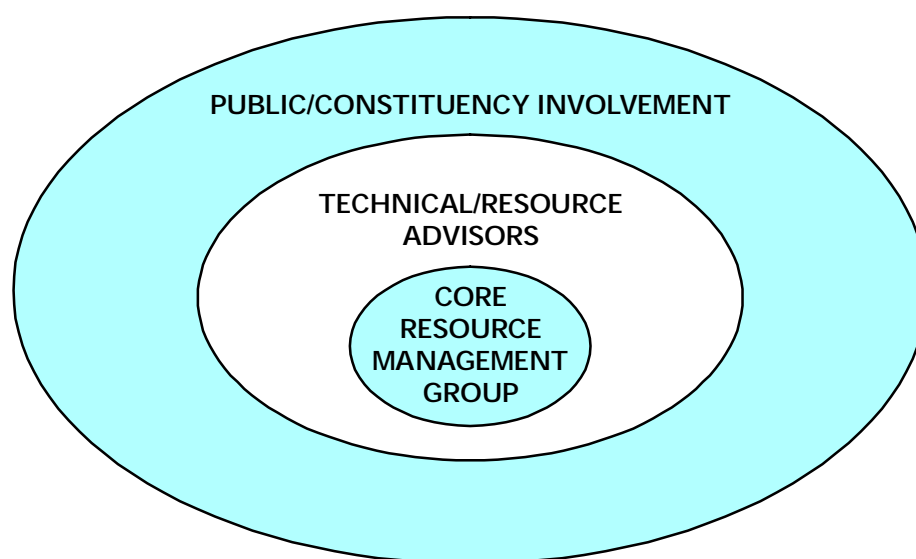
Figure 6. Levels of stakeholder involvement.

Table 10. Case study: Key participants in CRM Process in Negros Oriental.

Negros Oriental, in the Central Visayas region, is one of the learning areas of the USAID/CRMP project that includes 71 *barangays* and 102 km of coastline. The area is famous for its marine mammals and coral reefs that attract thousands of tourists each year. However, the marine resources are overexploited and degraded from destructive fishing practices, siltation, and lack of wastewater treatment facilities. CRMP is working with the local communities, LGU, NGOs, and research institutions like Silliman University to address these problems through ICM – the process of planning, implementing, and monitoring beneficial uses of the resources through participation and sound decision-making by all stakeholders. Figure 7 outlines the key participants and components of the CRM process.

Essential Inputs

Funding
- Provincial LGUs
- City/Municipal LGUs
- DENR
- BFAR
- NGOs
- Academe (Silliman University)
- Donors

Information
- Existing databases from LGUs, NGAs, academe
- PCRA data and maps
- Profile

Technical Support
- Silliman University
- DENR
- BFAR
- Provincial LGUs
- NGOs
- CRMP

Coordination

Provincial Level
CRM Advisory Council
- Provincial Planning and Development Office
- Environment and Natural Resources Management Division
  Provincial Agriculturist's Office - Fisheries Division
- DENR
- BFAR
- "Ting" Matiao Foundation, Inc.
- Silliman University
- CRMP

Support and Facilitation Mechanisms
- PCRA mapping
- ICM planning
- Education and training
- Legal and institutional structure
- Enterprise development
- Community organizing

Municipal Level
- FARMC
- Environment and Natural Resources Council
- *Bantay Dagat* Federation
- Municipal CRM Training Team
- City/Municipal Development Council

***Barangay* Level**
- *Barangay* Council
- *Barangay* Development Council
- *Bantay Dagat*
- Fishermen's Association

Planning and Implementation

Management
- ICM plans
- Marine reserves
- Monitoring and assessment

Law Enforcement
- Licensing
- Close/open seasons
- Limited access
- Municipal/City ordinances

Education
- ICM training
- PCRA
- Marine ecology
- *Bantay Dagat* deputization
- Fishery and coastal laws
- Waste management
- Population management

Sustainable Enterprise
- Seaweed farming
- Fish cages, mariculture
- Ecotourism
- Clothes and handicraft production
- Food processing

Legend:

BFAR	=	Bureau of Fisheries and Aquatic Resources
CRM	=	Coastal Resource Management
CRMP	=	Coastal Resource Management Project
DENR	=	Department of Environment and Natural Resources
FARMC	=	Fisheries and Aquatic Resources Management Council

ICM	=	Integrated Coastal Management
LGU	=	Local Government Unit
NGA	=	National Government Agency
NGO	=	Nongovernment Organization
PCRA	=	Participatory Coastal Resource Assessment

Figure 7. Institutional diagram and CRM process in Negros Oriental (Murphy et al. 1999)

MARIA FE PORTIGO

Local resource users are the ones most familiar with the distribution and condition of coastal resources and have the most to gain from proper management.

ALAN WHITE

Strategies to reduce fishing pressure and stop destructive fishing practices require involvement and participation by fisherfolk at the local level.

Community organization process

The success of CRM projects can often be attributed to well organized communities that have been empowered to be responsible for managing and protecting their coastal resources. Community organizing is the process of bringing together members of a community and empowering them to address common concerns and problems and to identify the community goals and aspirations. The active participation of people in a community is the essence of community organization; people have to be organized before they can participate in a substantial manner. Local fishers are often aware of the degraded state of their marine resources but feel helpless to change the situation. Community organization is a process that uses interactive and participatory problem-solving techniques, capacity building, and empowerment of the community members to identify problems and find solutions to coastal resource issues.

Community organization is the "glue" that holds a CRM program together. Community organization is initiated before the planning process and continues until the community is empowered enough that external organizing assistance is no longer needed and the community can participate in CRM on its own in a sustained fashion.

Community organization is undertaken to achieve the following:
- ◆ Increase the coastal community's awareness of the condition of their environment and resources and their collective responsibility to manage the environment at a sustainable level;
- ◆ Develop in people a sense of ownership over the resources, a recognition of their part in the problem, and the capacity to collectively manage and protect their resources;
- ◆ Prepare the community and provide opportunities for local participation and decision-making using the CRM process of issue identification, planning, implementation, and monitoring;
- ◆ Strengthen the community's capability to access funds to support viable and sustainable socioeconomic projects;
- ◆ Enable the community to form alliances for advocacy and sharing of resources and technologies; and
- ◆ Build and sustain organizational structures for CRM.

ROLE OF THE COMMUNITY ORGANIZER
The CRM process is best facilitated, at least initially, by a community organizer (CO). The CO comes from within or outside the community and is often sponsored by a donor project, NGO, or

government unit that is providing technical advice and funding during the early stages. Though early community organization is the initial responsibility of the CO, it is in the end a collaborative effort among all members of the community and the LGU. Oftentimes the NGOs play a very significant role in facilitating this process because of their experience in community organization and mobilization. The ultimate goal is to empower the community so they are able to manage their resources without the presence of community workers.

The CO serves as a "bridge" between the community and those who want to help the community to be involved in the CRM process. The CO should have:

- A clear understanding of the different theories of development;
- Familiarity with the concept and processes of community organizing;
- Social and community relationship skills such as skills in establishing rapport, conflict management and group maintenance;
- A clear grasp of CRM concepts and processes;
- The ability to work with teams of professionals involved in the management of marine and coastal resources;
- A clear perspective of when to phase-out and to "let go;"
- Interviewing and documentation skills; and
- Communication skills (see detailed discussion in Chapter 5).

The community organizer is a facilitator for the community and is thus responsible for initiating group discussions and managing group dynamics during the CRM process. Table 11 lists some guidelines for facilitating group discussions that should be used as standard operating procedures during the community organization and CRM planning process.

Table 11. Guidelines for facilitating group discussions (from IIRR 1998).

- Always begin by introducing the facilitator and participants;
- Start the session with a cultural ritual or prayer if appropriate for the group;
- Make sure the language used is understood by participants or use a translator;
- Start the session by explaining the objectives, describing the agenda or activities, and identifying the desired outcome;
- Explain the process the group will go through, the roles of the participants, and the expected timeframe;
- Have someone besides the facilitator document the discussion and outputs in meeting minutes and give a copy to the group;
- Always include the names of participants and date on any output;
- Be resourceful and creative and use interesting audio-visual aids;
- Be sensitive to participants needs; take breaks when needed; allow for the agenda to change if other important issues are raised;
- Choose an appropriate time and place for the community to participate;
- Do not rush the participants; work at their speed;
- Encourage participation by all; control participants who dominate the group;
- Listen carefully to participants and do not interrupt;
- Settle disagreements through dialogue and consensus-building; exhaust all arguments until a resolution is reached; and
- Be gender and culture sensitive and create an environment of respect.

The technology of participation (TOP) process is also helpful in initiating organizing work and for conducting workshops. A few pointers from TOP are described in Table 12.

Table 12. Basic technology of participation (TOP) method *(from Governance and Local Democracy [GOLD] Project/ARD).*

Technology of participation Basic methods of facilitating group processes	
Discussion method	◆ Focuses dialogue on a common topic or area of concern ◆ Shares diverse perspectives in a non-confrontational matter ◆ Deepens insights/resolve of a group
Workshop method	◆ Focuses insights/discussion of a group ("common ground") ◆ Effective way of building a practical group consensus ◆ Moves group to joint action
Action Planning method	◆ Combines both discussion and workshop method ◆ Effective structure for moving a group from a good idea to a concrete plan of action ◆ Creates clear forms of accountability ◆ Initiates group action

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PHASES IN THE COMMUNITY ORGANIZATION PROCESS

Community organization is a process composed of different phases that lead toward achievement of the goal of empowering the community and fostering participation (Deguit 1989; IIRR 1998). Basic steps that a community worker can take to organize and mobilize a community and to help prepare the community to become involved in CRM activities are shown in Figure 4 and described below. Often these steps occur simultaneously and are closely linked with the steps in the CRM planning process described in Chapter 4. The following phases describe the entire process and are summarized in Figure 8.

Preparatory phase

Community organizing starts with the preparatory stage, which involves administrative preparation on the part of the CO and initial efforts to build awareness in the community about the concept and need for coastal management and the benefits it can bring (IIRR 1998). The object is to promote acceptance of the CRM process by the community. This stage includes the following activities that are undertaken before the entry of the community organizer into the project site or community:

- **Orientation and/or training of the community organizer.** The CO must have at least the basic knowledge of CRM principles.
- **Area selection.** Criteria for site selection must be established and should include an evaluation of the receptivity of the local government and community to CRM.
- **Data gathering.** At this stage, the CO needs only to collect information about the area from secondary sources such as existing documents, interviews with key outside informants to help in integration into the community

- **Logistics and administrative preparations.** The implementing agencies or NGOs should work to establish an office and hire local staff that will be needed to support the CO.

Integration phase

After the preparatory phase, the community organizer immerses himself or herself in community life in order to gather, from community members themselves, the information needed to organize the community. The organizer must have an intimate knowledge of local conditions, as well as an understanding of community culture, history, economy, and social structure. The community organizer should spend time to integrate with the community in the area for many months to introduce to the community the idea of CRM, meet with community leaders, attend local meetings, and generally become accustomed to local culture and traditions (IIRR 1998). Specific activities include:

- **Becoming involved in local activities.** The CO should become a part of the community and participate in local economic and social activities.
- **Identifying key informants.** The CO should determine the types of information needed and identify key players in the community that can provide reliable information on those topics.
- **Making courtesy calls on community leaders.** The CO must seek support from local leaders and encourage their participation in the CRM process.
- **Gathering data.** A variety of data gathering techniques such as rapid assessment, surveys, and questionnaires can be used to better identify the concerns and problems of the community and the current status of coastal resources.
- **Identifying problems and needs.** The CO should conduct workshops and meetings to begin to identify community problems and needs.
- **Identifying existing and potential leaders.** The CO should identify candidates in the community who could become CRM leaders and help in their training and preparation.
- **Assess existing organizations.** Before deciding to form a new organization or just strengthen the existing ones, the CO should first identify and assess the existing organizations based on some criteria (see Table 13).
- **Initial formation of core groups.** Different sectors should be represented in core focus groups and committees established to address CRM-related concerns of the community.

Table 13. Factors to be considered in assessing existing organizations.

- Does the organization represent the different sectors in the community (e.g. youth, fishers, women, etc.)
- Was the organization/group formed to address issues related to CRM?
- Does the organization have a mechanism to deal with dynamics/issues within the group (e.g. interpersonal conflicts, delineation of roles and functions, etc.)
- Does the organization have a legal personality and/or credibility in the bigger community?
- Is the leadership structure and pattern democratic enough to promote maximum participation from members?

Mobilization phase
After the community has identified problems and needs, the stage is set for community mobilization; this is the phase where most of the community organizing takes place. The CO should work with the community during the CRM planning and implementation process to ensure their involvement in decisions and activities. The following are some activities the community should be encouraged to undertake:

- **Facilitating involvement in planning process.** The CO should work with focus on management groups to help them get involved in the CRM planning process discussed in Chapter 4.
- **Leadership training and team building.** The CO should create training opportunities to encourage coastal resource leaders and provide team building activities that will help empower the community and reduce its reliance on the CO.
- **Cross-visits.** Selected members of the community should visit other successful CRM projects to learn from the experience of other communities
- **Facilitating problem-solving.** The CO and management groups should establish criteria for conflict resolution and conduct training workshops on conflict resolution using hypothetical situations.
- **Economic and livelihood generation projects.** The CO can assist the community in developing alternative livelihood projects that are more sustainable for the community.
- **Formalizing partnerships.** The CO can help formulate a memorandum of agreement (MOA) to formalize partnerships.

Community strengthening phase
To ensure sustainability of CRM efforts, there should be continual strengthening of the community. This is achieved through positive feedback and publicity of successes, training, and capacity building. This phase should include the following activities:

- **Training of second-line leaders and community volunteers.** The CO should identify future leaders to eventually do the work of the CO when he/she leaves the community.
- **Building alliances with other organizations.** The CO should assist the community in forming strategic alliances with NGOs, neighboring communities, and other organizations with common interests.
- **Organization strengthening.** The CO can help improve capacity through value formation, advanced leadership training, and outreach to the larger community.
- **Promotion of project benefits.** The CO should work with technical and IEC assistance to strengthen socioeconomic services initiated during mobilization and to publicize benefits of CRM.
- **Ensuring sustainability.** The CO can work with focus groups, councils, committees, and task groups to ensure that long-term planning is being conducted.

- **Networking.** This is a way of strengthening the capability of the community groups and/or organizations by pooling resources together and creating support network for IEC, advocacy, and funding.

Monitoring and evaluation phase

The success of the CRM efforts is evaluated through careful monitoring of indicators or success criteria and periodic evaluation. During this phase, the CO will help the community groups determine if the objectives of the CRM project were met and the reasons for the success or failure. Activities include:

- **Facilitating periodic assessments.** The CO should facilitate the community's participation in monitoring and evaluation efforts to assess the successes and failures of CRM initiatives.
- **Re-evaluating and refining community role.** The CO should facilitate the community's participation in the iterative process of evaluation and refinement; the CRM program should be periodically modified and improved to better fit the needs of the community and to reflect current conditions.

Phase-out

Phase-out refers to that stage when the CO starts to withdraw from the community because ideally the goals set by the community and the CO at the start of the community organizing process have been achieved. It is assumed at this stage that the community has reached a certain level of capability to continue the CRM process. The community will then take full responsibility for managing its resources, and roles within the community may need to be modified to reflect that change. The CO may leave the community, but may return as needed to provide technical advice.

- **Modifying roles:** The CO should transfer community organizing responsibility to community leaders.
- **Providing support:** The CO should continue to provide support as needed until phase-out is complete.

The end result of successful community organization efforts is a self-reliant, self-regulating, and ecologically conscious community that can advocate for themselves and fully participate in the CRM planning process. There should be a conscious effort to reduce the reliance of POs and community groups on outside intervention for the sustainability of CRM programs. Figure 8 provides an overview of the community organization process and the key steps that should be accomplished before the community organizer leaves the community. Table 14 provides a case study of a successful community organization effort in San Salvador Island.
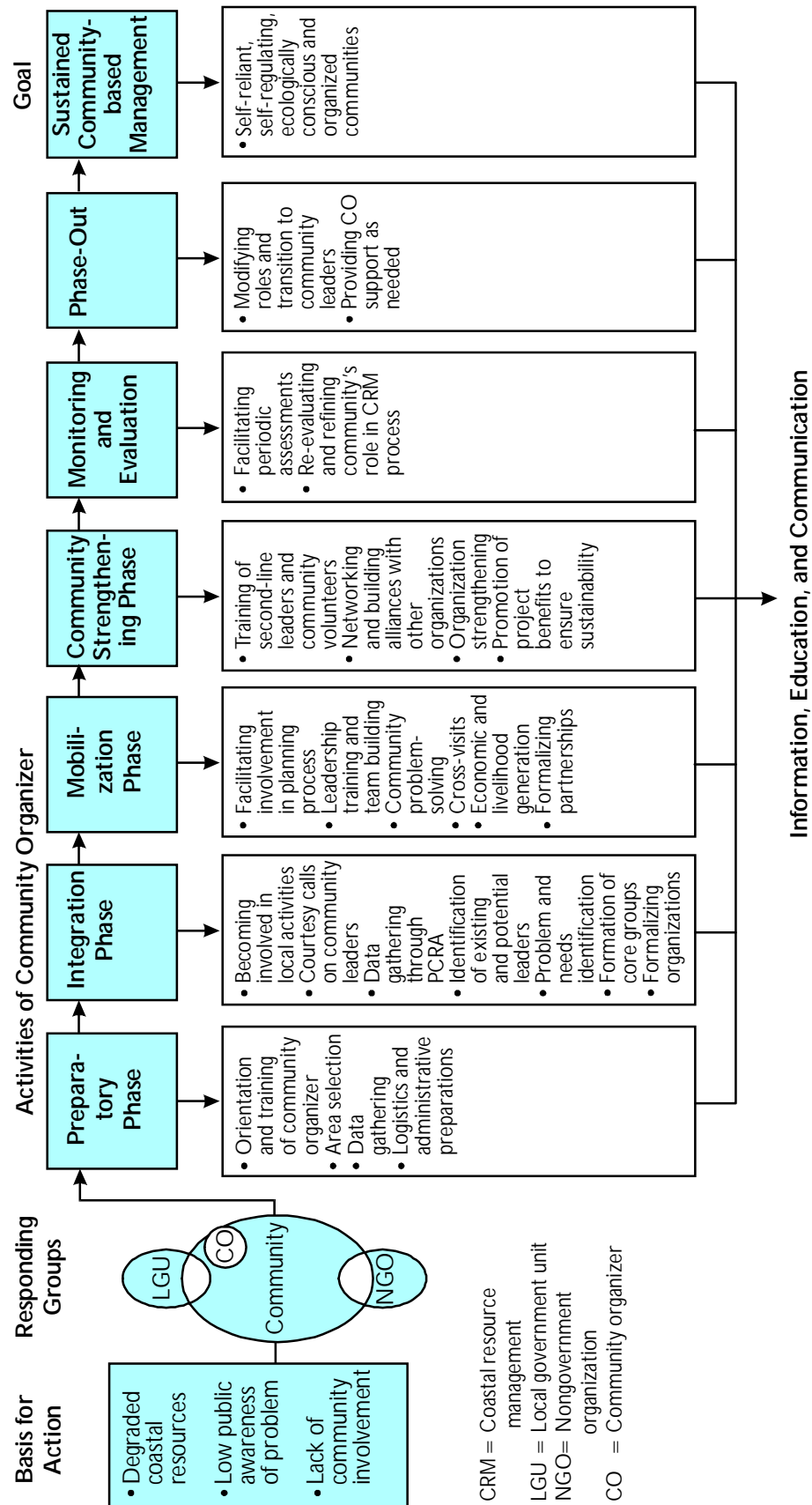
Figure 8. Overview of phases of community organization process.

CRM = Coastal resource
management
LGU = Local government unit
NGO= Nongovernment
organization
CO = Community organizer

Table 14. Case study: Community organization and participation in San Salvador Island.

San Salvador Island, near Masinloc (Zambales) is a good example of how a community that faced serious threats to its marine resources such as destructive fishing (cyanide and explosive), overexploitation of resources, lack of enforcement of existing regulations, and lack of livelihood alternatives became organized to participate in CRM activities. This community, heavily dependent on coastal resources, was initially characterized as having a low per capita income, lacking organization, and pessimistic about positive change. The first community worker, a Peace Corps volunteer, arrived in 1987 and spent a year assessing the community's needs and level of understanding. With input from some of the community members who were not involved in illegal fishing, he prepared a proposal and received financial support for a CB-CRM project. The Haribon Foundation became the implementing agency and the Marine Conservation Project for San Salvador (MCPSS) was initiated in 1988 to address the problems of resource mismanagement through education, community organization, and community involvement. A Filipina community organizer moved to the community to facilitate community involvement. An ongoing formal and informal education program, an inspirational study tour by community leaders to the successful marine reserve at Apo Island, and children's activities raised the awareness of the community members about their resource problems. Prior to the community education program, the average score on a basic ecology/environment questionnaire was 69 percent for a random sample of residents; fourteen months later, the average score was 86 percent.

San Salvador community members formed the *Lupong Tagapangasiwa ng Kapaligiran* (LTK) or Environment Management Committee. After two general meetings attended by community leaders and staff of the Municipal Planning Development Council and the Department of Agriculture, the community drafted a resolution for the establishment of a 125-ha marine sanctuary which was off-limits to fishing and a traditional fishing reserve around the island where illegal or destructive fishing practices were banned. In 1989, the municipal council passed an ordinance legalizing the sanctuary and reserve. The creation of the sanctuary alienated some members of the community, particularly aquarium fish collectors who used destructive methods, and generated conflict within the community that has been difficult to address completely. These conflicts were aggravated by cultural differences and resentment regarding the higher income gained from illegal fishing methods and could have been minimized with early training in alternative livelihoods. The local community has developed its own enforcement methods with the support of the municipal government; cyanide and dynamite fishing have been significantly reduced. As its leadership skills grew over several years, the LTK was less dependent on the input from community workers. Decisions are made by the community through general assemblies called with the support of the Barangay Council.

Community development has continued with the formation of the Alternative Income Committee, capability building in basic leadership skills, and outreach to neighboring communities. It was necessary to extend the presence of community workers and formal institutional support longer than the initial plan of two years to ensure success of the MCPSS; two years was not long enough to see substantial change in capability or resource use. Another difficulty noted was lack of coordination among project leaders and plans that were not carried through to completion, indicating the importance of not attempting too many activities at once. Despite some difficulties, MCPSS is considered a successful project that has raised community awareness, increased local capacity for resource management, created formal organizations that work in conjunction with the Barangay Council, and provided tangible results in addressing the problem of habitat destruction and declining fisheries.

Source: (Buhat 1994; Christie et al. 1994; Dizon and Miranda 1996)

TONI PARRAS

Conducting socioeconomic interviews provides data on income, family situation, and resource use and facilitates the community organizer's integration into the community.

TIONI PARRAS

Involving community women in coastal resource management is an important strategy in community organizing.

chapter 4

Participatory approaches to involve communities in the CRM planning and implementation process

The community organization process focuses on building the capability for effective participation by the community in the CRM process. This chapter describes the participatory tools and methods that are brought to the community by the trained representatives of the LGU and NGOs or by a CO that can be used to involve communities in the coastal management planning process (IIRR 1998). These tools and the roles of key participants are described for each of the planning phases described in *Guidebook 3: Coastal Resource Management Planning.*

The 5-phase planning process outlined in Figure 9 focuses on local-level ICM initiatives for LGUs. Participatory tools to involve the community in the CRM planning process can be used by the LGU or community themselves, although often an external agent such a CO, NGO, or technical assistance team brings the tools and the knowledge of using them to the community.
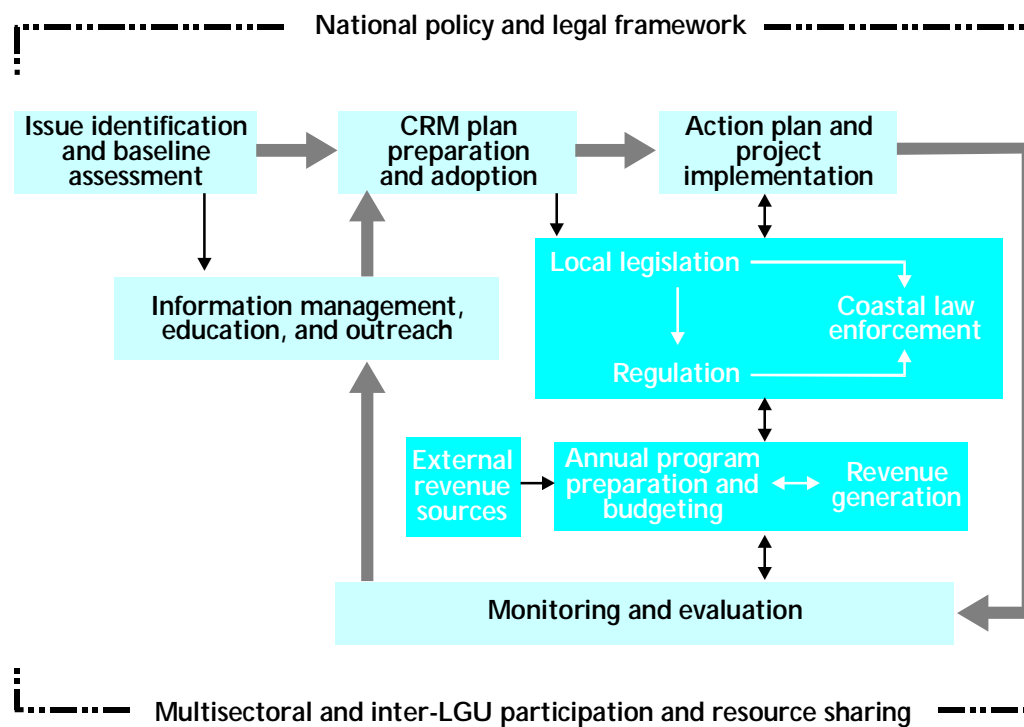
Figure 9. The CRM planning process being adapted for Philippine local government.

The community organization steps described in Chapter 3 are integral to the planning process and should be carried out throughout the program from initial preparation to program refinement. Similarly, the process of educating the community and raising public awareness about coastal resources should be conducted throughout the CRM planning process. IEC tools and approaches are discussed in Chapter 5. Representatives of the LGU and NGOs should identify a CO for the community and bring a toolbox of participatory tools and approaches that can be used to organize and involve the community in each step of the planning process (Figure 10).

Figure 10. Community organizers, LGU, NGO, and community leaders bring a toolbox of participatory approaches to the community.

PHASE 1. ISSUE IDENTIFICATION AND BASELINE ASSESSMENT

The first phase in the CRM planning process is the identification of issues and development of a baseline assessment. This requires a program preparation step to prepare the stakeholders to be involved in the CRM process and a multi-step process for gathering needed information and prioritizing issues of concern.

- Program preparation;
- Secondary information gathering;
- Field assessment/Participatory Coastal Resource Assessment (PCRA) and other research;
- Database and profile development; and
- Prioritizing issues and analyzing causes.

Program preparation

The first step in this process is program preparation and includes identifying stakeholders and securing commitment to participate, organizing the community and identifying leaders, recruiting staff, identifying planning boundaries in the coastal zone, and developing a workplan to outline the planning activities to be undertaken (Table 15).

The LGU should identify areas for CRM assistance, commit human resources in the form of dedicated staff for CRM, endorse and support community participation, and enter into memoranda of agreement (MOA) with community and NGO partners. The LGU should provide for and assign a CO to the community as well as providing permanent CRM staff. Local NGOs and POs should meet with LGU representatives and advocate for community involvement in the CRM planning process and help in the identification of stakeholders and an appropriately trained CO. A workplan to address CRM activities should be developed by the LGU and local partners.

Table 15. Program preparation.

Roles		Participatory tools and approaches
Community	• Attend CRM briefing/orientation sessions and participate in discussions • Communicate needs and roles • Provide inputs to the MOA	Regularly scheduled public meetings Workshops
Local Government Unit	• Identify areas for CRM assistance • Determine boundaries and scope • Enter into memoranda of agreement (MOA) • Determine capability and commit human resource to serve as partner in facilitating the CRM process • Assign a permanent CRM staff under an appropriate LGU office • Communicate needs and potential roles of key players • Participate in discussions • Endorse community to participate in the whole planning process and secure consensus on approach and design • Prepare workplans	Leadership training Venn diagrams (see Table 16 and Figure 11) Brainstorming sessions (see Table 16) Formation of working groups
Non-government Organization	• Network and build alliances • Identify stakeholders • Communicate needs and potential roles • Train staff • Facilitate consensus and secure MOA • Prepare workplan	
Community Organizer	• Begin community integration; orient oneself with local situation • Assist in preparation of work plan • Conduct visits with LGUs, NGO partners, and local leaders to identify stakeholders • Conduct CRM orientation and briefing to LGUs and potential partners • Make an ocular visit of the community (municipal/*barangay* level) • Conduct legwork to prepare signatories for the MOA • Conduct workshops and brainstorming sessions	

The CO should get oriented with the local community, meet with local leaders and partners, facilitate community preparation, identify stakeholder groups, help to prepare workplans, and assist in preparation of MOA among the parties involved. The community leaders and members, especially resource users, should attend CRM briefings or discussions and strive to communicate the community's needs and concerns to the LGU.

A variety of participatory tools such as workshops, discussion groups, and seminars can be used to help organize the community, identify issues of concern and important stakeholders, and identify potential leaders in coastal resource assessment. Venn diagrams are used to identify relationships among stakeholders (Table 16 and Figure 11). Brainstorming sessions can be facilitated by the CO and used to air community needs and concerns (Table 17); working groups can be formed for each of the major issues identified. A CRM leadership training program can be established to further prepare the community for a stronger role in the planning process.

Table 16. Participatory tool: Venn diagrams.

The Venn diagram is a visual tool for illustrating relationships among stakeholders, influence of institutions or groups, and relationship of groups with the community (IIRR 1998). The diagram uses circles to represent groups and size and placement of the circles to represent influence and relationships. The purpose is to identify the interaction and relationship among various groups and institutions that may be involved in the CRM process. Usually the community organizer initiates this procedure with the help of key informants in the community who are aware of social and political structures. The steps in the approach are:

- Gather key informants and explain the meaning of symbols that will be used;
- Use a square or rectangle to represent the boundary of the area under discussion;
- Ask the participants to identify groups having some internal or external influence over the coastal area, resources, or activity under evaluation;
- Use circles inside the boundary to represent internal groups, circles on the boundary as external groups with some presence in the community, and circles outside the boundary to represent external institutions with some influence on the community;
- Use the size of the circles to represent influence of the group relative to other groups; the larger the circle the greater the influence. Colors can be used to distinguish community groups, government, and NGOs. Circles representing groups influencing each other or with common membership should overlap; and
- Encourage a group discussion about the output.

Table 17. Participatory tool: Brainstorming sessions.

A quick and easy tool used to identify problems and issues in the community that could be addressed by a CRM plan is brainstorming. Brainstorming is a facilitated group discussion where members of the community are encouraged to share their ideas about a particular topic (such as why are the reefs degraded?, why do fisherfolk engage in destructive practices?). The point of the effort is to get participants to react to the topic and to throw out ideas in a creative fashion; this provides the opportunity to gather diverse opinions and generate new ideas. The facilitator should write down all the ideas as they arise and not encourage lengthy discussion of each one.

Institutions involved in CRM
Sitio Luzaran, Lapaz, Nueva Valencia, Guimaras, Philippines
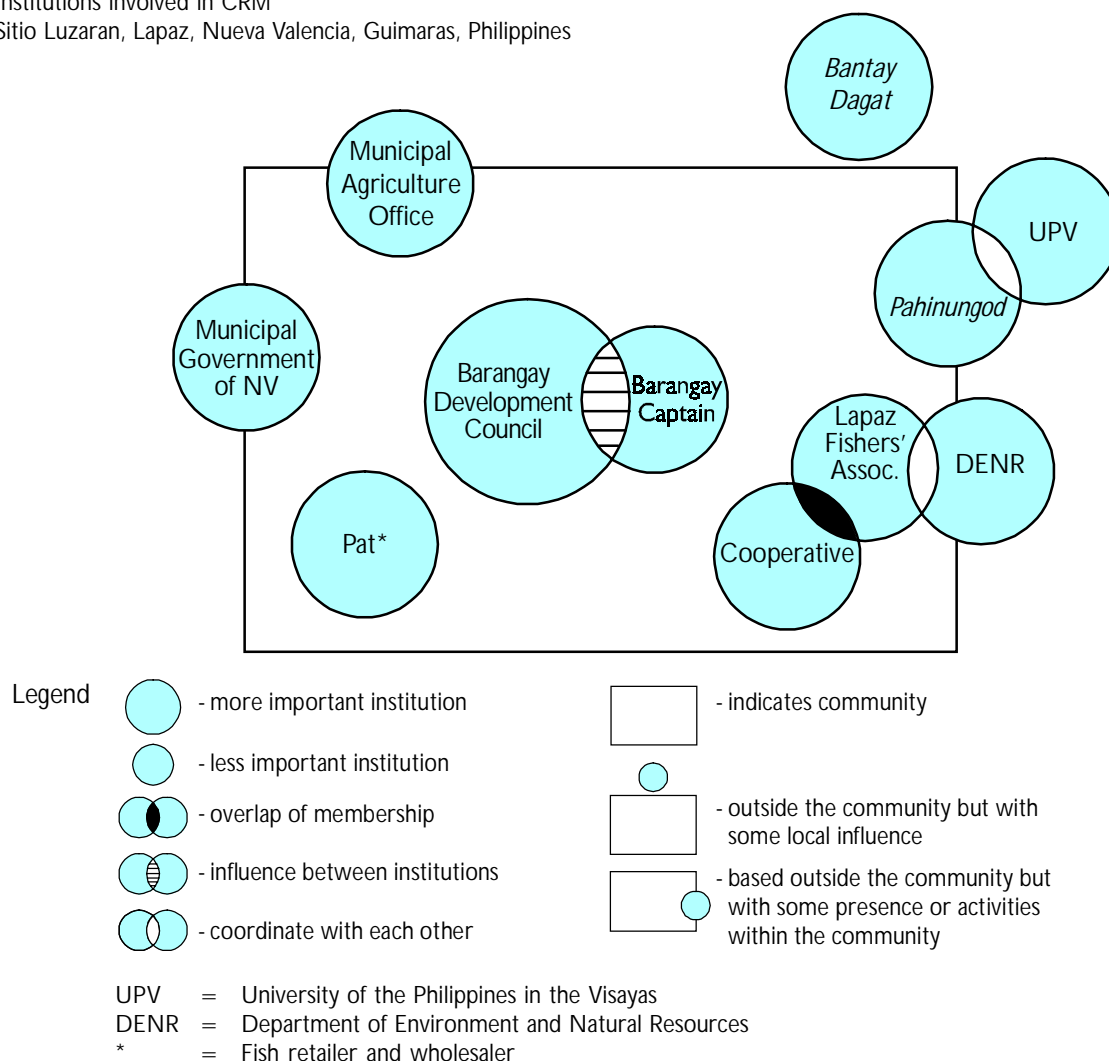
Figure 11. Venn diagram of institutions involved in CRM (from IIRR 1998).

Issue identification and baseline assessment

The next steps in the planning process are to gather secondary information, collect additional data, and conduct participatory coastal resource assessment, develop a coastal environmental profile, and identify and prioritize issues and concerns of the community and LGU. These steps will be more successful with stakeholder involvement. The coastal environmental profile will be used as the basis for planning activities and as a baseline for future monitoring and evaluation and should therefore incorporate the community's assessment of current conditions and needs.

A coastal environmental profile includes both detailed environmental data, information on the legal and institutional basis for planning, and data on socioeconomic conditions as described in *Guidebook 3: Coastal Resource Management Planning*. The profile should include detailed

information on resource and livelihood conditions; water quality; extent and quality of reefs, mangroves and other habitats and fishery resources; socioeconomic and other basic demographic information on coastal residents; and resource use and other economic activities. This information can provide a summary of baseline conditions to which post-project changes can later be compared. A good example of a coastal profile is *Rhythm of the Sea* compiled for San Vicente, Palawan (Arquiza 1999).

The coastal profile provides the context for management. It should be sufficiently detailed to provide the reader with a clear understanding of the environmental and social conditions at the site, why management is needed, and how such management might improve coastal conditions. The profile should help answer two key questions:

1. What are current resource conditions, patterns of resource use, and resource use problems and how are they changing over time?
2. What problems or obstacles for CRM and sustainable coastal development are revealed?

Coastal profiles and subsequent management plans are based on the compilation and analysis of a great deal of information about coastal resources, resource use activities, and the characteristics of resource users. Some of this information will come from collecting secondary data such as official maps and documents and from studies by experts. However, a significant amount can and should come from the coastal residents themselves and, in particular, resource user groups such as fishers. Indeed, the 'local knowledge' provided by user groups is a critical component of the background information for planning.

There is no detailed methodology for gathering secondary information. It is mostly a matter of writing letters, making telephone calls, visiting offices and libraries, interviewing officials, teachers, scientists, and researchers; however, it is essential to keep detailed records of the sources of secondary information.

The process for gathering information from local users is called Participatory Coastal Resource Assessment (PCRA). PCRA consists of a suite of information gathering techniques including document reviews, household surveys, resource mapping, and interviews and is described in detail in Participatory Coastal Resource Assessment (Walters *et al.* 1998). Information on the contents of a profile and sources of secondary information is presented in *Guidebook 3: Coastal Resource Management Planning*.

The core of PCRA is the construction of maps by fishers and other resource user groups that show resources and their condition. These techniques are particularly valuable because they:

- "produce spatial details about the coastal area, such as the locations of small, but productive reefs that are not usually revealed in assessments conducted by outside experts;

- generate information about important events that occur during a short or irregular time period, such as seasonal fish spawning aggregations, that are almost impossible for outside assessments experts to discover independently; and
- add specific details to general information generated by experts such as providing specific descriptions of the relative condition, e.g. old growth, previously logged, etc., of areas described by experts as only a single general category of mangrove" (Walters *et al.* 1998).

A sample community transect diagram is shown in Figure 12 and is made by community members walking a transect from the sea to upland areas. A PCRA resource map, shown in Figure 13, presents a summary of the spatial distribution and condition of resources in the area. PRCA is described in more detail in Table18, while some specific methods for collecting data are described in Tables 19-24.

COMMUNITY TRANSECT DIAGRAM
San Vicente, Palawan

Habitat management parameter	Bakawan (mangrove)	Aplaya (beach)	Hibasan (tidal flat)	Damuhan (seagrass bed)	Bahura (reef/shoal)	Ilalim (deep water)
Mga likas na kayamanan (natural resources)	*alimango*, *tamilok*, shells, *manla*	resort, shells, *alimango* (mangrove crab), *pandan* (*Pandanus*), *niyog* (coconut), *nipa* (*Nypa fruticans*)	hermit crab, *tayong* (sea urchin), *balatan* (sea cucumbers), shells, *alimango* (crabs)	seaweeds, fish - danggit, *gono*, *banak*, *pusit*, *banyaw-banyaw*, *bantol*	*isda* (finfish), *pugita* (octopus), shells, *banagan* (lobsters), *balatan* (sea cucumbers)	isda (finfish)
Mga uri ng hanapbuhay, mga pagkakataon (types of livelihoods, opportunities)	*pangisdaan* (fishery), *bahayan* (place for houses), *pantalan* (pier location), *gatong* (firewood)	harvest and sell above, *paggawa ng banig*, etc. (making mats, etc.) coco products, *pawid* (roof shingles), wine	shell *balatan* (sea cucumbers, dried)	harvest and sell above	harvest and sell above	harvest and sell above, fish deep reefs with compressor (not recommended)
Mga suliranin (problems, issues)	*bawal magputol* (cutting is illegal), *nik-nik* (biting flies/ midges)	losing *niyog* (losing coconut trees)	none	more human disturbances of *panti* (gill net), *bantol*, (stonefish)	sodium cyanide fishing, blast fishing, *tubli* (poisonous root used to catch fish), *lagtang* (poisonous plant)	trawlers, blast fishing, sodium cyanide fishing, tubli (poisonous root used to catch fish), lagtang (poisonous plant)

Figure 12. Community transect diagram.

MARIA FE PORTIGO

Community members are empowered by collecting and recording data during baseline assessments and subsequent monitoring.

Table 18: Participatory tool: Participatory Coastal Resource Assessment (PCRA).

PCRA methods were developed to allow local fishers and other local resource users to generate valuable information for the CRM planning and implementation process and to improve community participation and empowerment. The specific data gathering techniques associated with PCRA are outlined below and can be overseen by trained community workers. A more complete discussion of PCRA methods and the information that can be generated by means of these methods is provided in the book Participatory Coastal Resource Assessment (Walters *et al.* 1998).

Participant observation by community workers provides information about daily life among coastal users. Detailed observation about resource use activities, how users name and classify plants and animals, interactions among fishers and fish-wholesalers, and other events provide background and context about resource use. Participant observation requires extensive note-taking and procedures for storing, retrieving, and analyzing notes.

Interviews with individuals and groups are a means of eliciting information about coastal resources or resource use activities. The quality of interview information depends on the training of the interviewer, the focus of the questions, the empathy that the interviewer is able to establish with community residents and the respect the interviewer demonstrates for local residents.

Household surveys are useful for gathering demographic information, attitudes, inter-household allocations of tasks and activities, and sources of household income, particularly with regard to income derived from resource use or allocation.

Identifying and classifying resources and habitats. Confirming local names of fish and other resources is essential if fish take is to be estimated accurately and resource use patterns are to be confirmed. The process of checking names and classificatory systems can occur as part of participant observation, in interviews, or as an independent activity.

Mapping is one of the most important PCRA activities. Fishers can contribute enormously to understanding of resource use activities by mapping their perceptions of fishing sites, spatial patterns of gear use, areas of fishing conflicts, as well as locations of reefs, mangroves, seagrass beds, and other resources. Thse maps can provide a wealth of useful information about patterns of resource use difficult to obtain in any other fashion. These and other data gathering techniques are also described in detail in Participatory Methods in Coastal Resource Management (IIRR 1998).

Barangay San Isidro

Legend :

/\/	Barangay boundary
☐	Sandy beach (*Buhangin*)
☐	Rocky shoreline (*Kabatuhan*)
☐	Inshore reef flats (*Hibasan*)
☐	Coral reef (*Bahura*)
☐	Estuary (*Bukana*)
☐	Terrestrial zone (*Lupa*)
☐	Marine Zone (*Dagat*)

Habitat destruction
(*Pagkawasak ng mga tirahan*)
Landslides (*Pagguho ng lupa*)
Destructive fishing
(*Mapanirang pangingisda*)
Organizational conflicts
(*Mga problema sa samahan*)
Destruction of fish aggregating devices
(*Nakawan ng isda/pagsira ng payao*)
Inadequate health care
(*Kulang sa gamot*)
Lack of potable water
(*Kulang sa tubig*)

RESOURCES (*Yamang Dagat*)

3	Indian mackerel (*Burao*)			Marine turtle (*Pawikan*)
4	Threadfin bream (*Bisugo*)			Oyster (*Talaba*)
5	Snapper (*Maya-maya*)			Dolphin (*Lumba-lumba*)
8	Emperor bream (*Kanuping*)			Squid (*Pusit*)
28	Sardines (*Tamban*)			Cuttlefish (*Tauban*)
31	Finler scad (*Salay-salay*)			Octopus (*Pugita*)
32	Lizardfish (*Karaho*)			Mud crab (*Alimango*)

Traps (*Bubo*)			Fry bulldozer (*Sudsod*)
Nets (*Lambat*)			Explosives (*Bungbong*)
Hook & line (*Kawil*)			Plant-based poison (*Tubli*)
Torch (*Pangilaw*)			Sodium cyanide (*sosa*)
Gleaning (*Panginhas*)			Commercial fishing
Squid jigger (*Ganti-ganti*)			(*Dinagko nga pangisda*)
Fish jigger (*Hipon-hipon*)			Recreational area (*Pasyalan*)
Artificial reef (*Arong*)			Settlements (*Pamayanan*)

Figure 13. A sample coastal resource map at the barangay *level.*

While the CRM planning team is generally responsible for organizing the data gathering process and the preparation of the profile, much of the actual data gathering can be done by NGO staff, and trained community members. The compilation of the data into maps and a profile should be done by the planning team and validated by community representatives, user group representatives and others (Figure 14). The key participants include representatives of LGU, community leaders and community members, community organizer, and local NGOs and POs (Table 19).
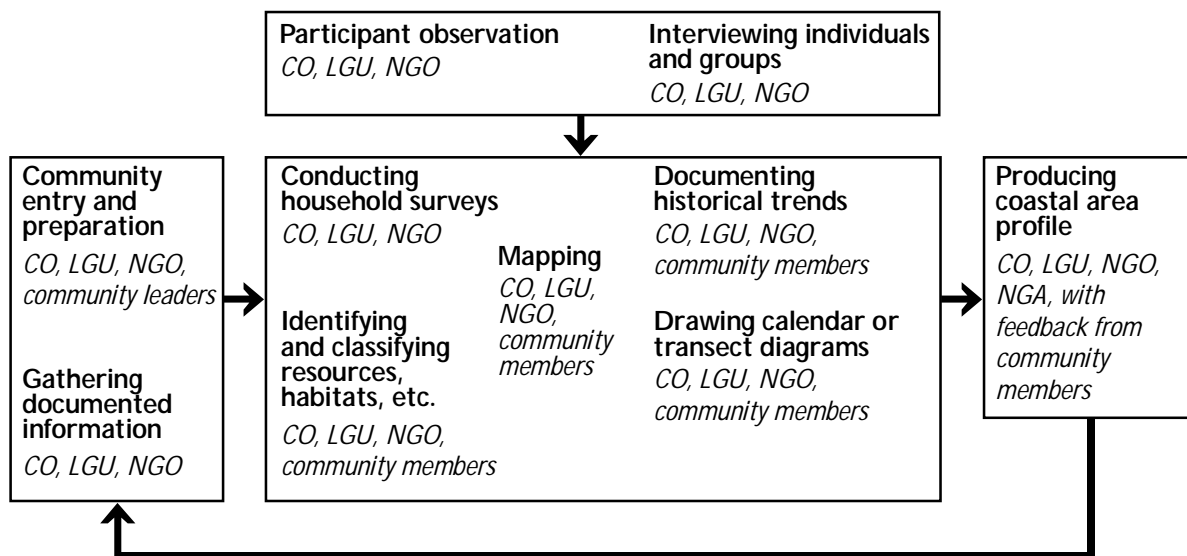
Figure 14. The interrelated methods of Participatory Coastal Resource Assessment and important players.

The LGU should locate and provide existing information and develop a database system. Appropriate agencies should train staff in PCRA, support the community in data collection and development of a coastal profile, and contract special studies by technical experts as needed. Local NGOs can assist by providing technical assistance, promoting community participation, providing support during the data gathering and writing phases, and assisting in distribution of the final profile document.

The CO should help the community to identify problems or issues, leverage LGU to support the PCRA, and train LGU and community members in conducting the assessment. The CO should help to form a technical working group to oversee the PCRA process and to write the coastal profile. The community members should provide information and share their experiences in coastal resource issues with the LGU, attend PCRA training, and participate in the development of their community's coastal profile.

Participatory and technical tools are used to collect information on the current condition of coastal habitats and resources, patterns of resource use, and socioeconomic and institutional aspects of the community affecting CRM that will become part of the coastal profile (see Tables 20-24).

Table 19. Issue identification and baseline assessment.		Participatory tools and approaches
	Roles	**Participatory tools and approaches**
Community/ PO	◆ Provide information ◆ Participate in community meetings/discussions ◆ Attend training for PCRA and participate in field assessment and community mapping activities ◆ Communicate to bigger community what is going on	List of issues Semi-structured interviews / Group interviews (see Table 20)
LGU	◆ Locate and provide existing source of secondary information (maps, data, etc) ◆ Compile existing plans, agreements, laws ◆ Begin to develop information storage and retrieval system ◆ Provide logistics support, information, training, and staff to conduct of PCRA ◆ Contract special research studies ◆ Compile coastal environmental profile ◆ Participate in setting priorities and resolving conflicts	PCRA (see Table 18): resource mapping, diagramming, transect walk Small-scale fishery surveys (see Table 21)
NGO/ Private sector	◆ Locate sources of information ◆ Help community identify issues; interject outside perspectives and research findings ◆ Form networks and alliances to reach stakeholders ◆ Conduct specialized research ◆ Assist in training, conducting, and writing profile ◆ Distribute coastal environmental profile	Surveys of commercial fish landings (see Table 22) Socioeconomic surveys (see Table 23) Community transect map (see Figure 12) and PCRA resource map (Figure 13)
CO	◆ Help community identify issues ◆ Facilitate the whole PCRA process ◆ Identify and train core group for PCRA ◆ Leverage with LGU leaders to provide logistics support to the conduct of PCRA ◆ Tap expertise to provide training and technical assistance in the conduct of PCRA analysis of data by community ◆ Form a technical working group representing community and multisector groups to write the profile	Mangrove assessment and monitoring Detailed resource survey methods (see Table 24)

Table 20. Participatory tool: Semi-structured interviews.

Semi-structured interviews are conversations with a purpose (IIRR 1998). Interviews are a direct method of obtaining community input during the data gathering phase and results can be included in the coastal environmental profile. The interviewer begins with guide questions and generates new questions during the course of the discussion; thus the information gained is not limited to pre-determined questions. There are a variety of types of questions that can be asked including:

◆ Descriptive questions – require the informants to describe activities or issues. (Describe how your fishing methods and fish catch have changed over the years);

◆ Structural questions – elicit a response that indicates how well the informant understands the complexity of the current situation. (What effect has the degraded condition of the reef had on your livelihood?);

◆ Contrast questions – provide an opportunity for the informant to compare and contrast situations in their world. (How would you compare the quality of life in the village now with 10 years ago?); and

◆ Probing questions – give the informant an opportunity to analyze situations and look for underlying causes. (Why do you think the fish catch has declined?).

Table 21. Participatory tool: Small-scale fishery surveys.

A variety of surveys and questionnaires aimed at local fisherfolk can be conducted to gather information on local resource use and resource conflicts. Standardized collection of information could include:

◆ daily fish catch (type and size);
◆ fishing gear used (type and size);
◆ fishing grounds visited (these should be mapped);
◆ seasonality of fishing catch and effort;
◆ types of boats used; and
◆ role of men and women in fishing effort.

This information is useful as baseline information and in monitoring changes in fishing over time. Surveys can also be modified to include questions about resource conflicts, resource tenure issues, and perceived trends in fish catch over time. A sample data sheet is shown below:

Date *(Petsa)*: **Time** *(Oras)*: **Location** *(Lugar)*: **Comments** *(Puna)*:				**Recorded by** *(Itinala ni)*: **Weighed by** *(Tinimbang ni)*:			
Moon phase	New		1st quarter	Full		Last quarter	
Weather *(Panahon)*	Stormy *(Masama)*		Rainy *(Maulan)*	Cloudy *(Maulap)*		Sunny *(Maganda)*	
Sea state 1 Calm *(Walang alon)*		2		3 4 Moderate (Katamtaman)		5 Rough *(Malaki ang alon)*	
Fishing gears *(Uri ng pangingisda at pangalan ng mangingisda)*	Fish species *(Uri ng isda)*	Weight *(Timbang)*	Location *(Saan galing)*	Number of fishers *(Ilang mangingisda)* Male *(Lalaki)*	Female *(Babae)*	Hours *(Ilang oras)*	Motorized banca *(Meron o walang motor)*

Sample fish catch data sheet (modified from IIRR 1998)

Table 22. Participatory tool: Commercial fish landing surveys.

This is a tool to assess large-scale or commercially important fishery resources at the local level. Selecting appropriate fish landing sites and designing the questionnaire or survey form is the first step and will depend on the purpose of the survey and the type of information needed. Surveyors can go to the landing sites and record types, number, and size of fish being landed, as well as number of boats, fishermen, and types of gear being used. Additionally, using interviews, information on changes in fish catch over time can be gathered by asking fishermen what they are catching now, what they caught 5 years and 10 years ago.

Table 23. Participatory tool: Socioeconomic surveys.

Socioeconomic surveys are important tools to determine the sources of income, quality of life, and underlying economic causes of resource problems. They are also an important first step in evaluating the potential for alternative livelihood development. Socioeconomic surveys can be conducted using an interview approach. Specific types of information that should be gathered from the community are included in sample survey form below.

Name of household representative	Source of information				Occupation		Major source of cash income		Household material used			Household ownership			Household light	
	H	W	D	S	Primary	Secondary	On-farm	Off-farm	Con-crete	Semi-concrete	Light	Owned	Rented	Etc	Electric-ity	Kero-sene
Perry Santiago	x				Farming	Fishing	Sales from rice	Wage of working child			x	x				x
Elvira Garcia		x			Farming						x	x				x
Tiwi Masamayor				x	Farming	Carpen-try	Sales from fish caught	Wages from carpentry work			x	x				x
Felipe Larido	x				Fishing	Farming	Sales from fish caught	Sales from baskets			x	x				x
Flora Bacasmot			x		Basketry	Fishing	Sales from vegetables			x		x			x	
Joseph Ygay	x				Farming						x	x				x

Name of household representative	Source of household water					Status of water use			Toilet				Cooking fuel			Garbage disposal			
	Deep well	Dug well	Spring	Rain-water	Peddled water	Owned	Neigh-bors	Com-munity	Flush tank	Water-sealed	Anti-polo	Oth-ers	LPG	Kero-sene	Fuel-wood	Compost	Burn-ing	Throw-ing	Bury-ing
Perry Santiago	x					x			x				x				x		
Elvira Garcia			x			x				x					x		x		
Tiwi Masamayor						x					x		x						x
Felipe Larido		x	x			x				x					x	x	x		
Flora Bacasmot	x					x					x				x		x		
Joseph Ygay					x	x				x			x				x		

Name of household representative	No. of members in household	Civil status				Educational attainment					Age group						Membership in organiza-tions
		Married	Widow (er)	Separ-ated	Single	None	Pre-school	Elem.	High school	College	<1-3	4-12	13-25	26-40	41-64	>65	
Perry Santiago	3	2			1			1	2				1	2			
Elvira Garcia	6	2			4			3	2	1	1	1	1	2	1		
Tiwi Masamayor	7		1	1	5	3		2	2		1	2	1	2		1	
Felipe Larido	10	2			8	2		4	2	2	1	4	2		2	1	
Flora Bacasmot	4	2			2	2		2			1	1		2			
Joseph Ygay	6	2			4	1		2	3				3	1	2		

Socioeconomic survey forms (SMISLE 1999)

Legend: H = husband W = wife D = daughter S = son

Table 24. Participatory tool: Detailed technical surveys.

More detailed technical surveys may be needed to more fully characterize the condition of natural resources. These surveys may need to be conducted or led by outside experts who are trained in scientific methods; however, these surveys also benefit from participation by trained local community members. A few examples of these types of surveys include:

Manta Tows: Manta tows involve the visual assessment of large areas of underwater habitat by towing an observer behind a small power boat. This technique is useful in assessing large scale changes in resource condition, determining the effects of disturbances on the underwater community, or in selecting sites that are representative of quality habitat for marine reserve status.

Line Intercept Transects: Line intercept transects are used to assess and describe the benthic community in coral reef habitats. Divers swim along transect lines placed along the bottom and record the percentage cover of life forms (rather than species) of major groups of corals, sponges, algae, and other organisms. This is a reliable and efficient method of obtaining percent cover data and spatial patterns in abundance of important groups of organisms.

Visual Fish Counts: Visual census of fish abundance is an efficient and quantitative tool to evaluate fish abundance and diversity. A diver swims along transects laid on the bottom and counts all fish observed within specified distances from the line. The type of fish counted can include all mobile species, target species for fisheries, or indicator species.

More information on these types of surveys can be found in the *Survey Manual for Tropical Marine Resources* (English *et al.* 1997) and *Coral Reef Monitoring for Management* (Uychiaoco *et al.* 2001).

PHASE 2: CRM PLAN PREPARATION AND ADOPTION

The second phase in the planning process involves:

- Establishing management bodies such as FARMCs and multisectoral technical working groups;
- Establishing goals and objectives; and
- Developing a CRM strategy and action plan.

Preparing and adopting a CRM plan requires the involvement and support of all stakeholders; however, usually the process is facilitated by the formation of management bodies or working groups with specific roles and responsibilities in developing the plan. The management groups represent the local community and LGU in the establishment of goals and objectives and development of a strategy and action plan to address stakeholder concerns about coastal resources.

Establish management bodies

Groups or management bodies such as municipal and *barangay* FARMCs and a Multisectoral Technical Working Group should be established to provide input and to write the CRM plan (see *Guidebook 3: Coastal Resource Management Planning*).

Establish goals and objectives

Once the community's coastal environmental profile is completed and issues have been identified, participatory methods can be used to identify strategic goals and objectives (Table 25). Since there are usually limited funds and resources available to address problems, it is important for the community to focus their efforts. Identifying preferred outcomes of the planning process can help the community create a vision for their CRM plan.

The LGU and NGO should conduct planning workshops to help the community prioritize issues. The CO is instrumental in helping the community in identifying problems and their causes, setting the community vision for their coastal resources, identifying stakeholders who would be impacted by the CRM plan, and building consensus during the planning process. The community should learn about the planning process and participate in establishing the community's objectives for resource management.

Table 25. Participatory tool: Establishment of goals and objectives.		
Roles		**Participatory tools and approaches**
Community/ PO	◆ Vision setting ◆ Provide inputs in formulation of goals and objectives ◆ Conduct small group discussions/consultations ◆ Ensure participation of different community sectors in activities ◆ Provide additional information and feedback to the process	Visioning workshop Focus group discussions (see Table 26)
LGU	◆ Provide basic policies and planning framework ◆ Provide representation from the *Sangguniang Bayan* ◆ Conduct planning workshops to prioritize issues and determine objectives	Problem and solution trees (see Table 27 and Figure 15)
NGO	◆ Provide technical assistance, outside experts, and research findings ◆ Facilitate prioritizing issues ◆ Help to build consensus; coordinate with LGU ◆ Provide inputs to plan	Diagram relationships and causal networks Preference ranking (see Table 28)
CO	◆ Formalize organization and core groups ◆ Facilitate process of prioritizing issues and identifying causes ◆ Conduct legwork to core groups and other community groups to ensure participation ◆ Train community participants about the planning process and coordinate with LGU for skill and technology transfer ◆ Problem analysis and vision setting ◆ Conduct stakeholder analysis ◆ Build consensus	Stakeholder analysis (see Tables 29 and 30)

A variety of tools can be used to promote community participation in identifying priority issues and establishing goals and objectives. These include focus group discussions (Table 26), problem trees and solution (Table 27 and Figure 15), preference ranking (Table 28) and stakeholder analysis and coping matrices (Tables 29 and 30) to analyze issues or problems and their underlying causes. Visioning workshops can be used to help the community identify their desired outcome or vision for community management of resources. Preference ranking (Table 28) is a participatory tool used to rank problems or potential CRM strategic interventions.

Table 26. Participatory tool: Focus group discussions (FGD).

Focus group discussions are small discussions with four to eight selected members of the community who are chosen for their knowledge or involvement in a specific issue. There are detailed guidelines for the discussion to focus on gathering information, clarifying community perceptions, and building consensus (IIRR 1998).

The approach involves:
- Establishing the objectives of the discussion with the community;
- Selecting participants based on their knowledge and involvement in the issue under discussion or work with community leaders to identify people;
- Planning the time frame for the discussion; and
- Designing focus group guidelines and following guidelines for leading group discussions.

Guidelines are open-ended questions designed to elicit discussion of a particular topic; the objective is to encourage participants to share experiences, opinions, and knowledge in the hope of generating new ideas.

Questions should be phrased to discover the community attitudes and perceptions about the issue. Guidelines should be brief and should provide the opening questions and framework to keep the topic in focus.

Table 27. Participatory tool: Problem trees and solution trees.

Problem trees are diagrammatic tools that can be generated with the community and government partners to identify core or underlying problems and their root causes and effects (IIRR 1998). This is the first step toward identifying specific interventions or actions to mitigate the problem and helps to develop the community's skills in assessing complex cause and effect relationships and provides a comprehensive overview for planning purposes. This problem tree approach involves:
- Selecting one problem for the participants to focus on. Provide an example of the difference between problems, causes, and effects. (e.g. Problem: destructive fishing practices damaging coral reefs; Causes: easy access to explosives and cyanide, high profit margin for those using this method; Effects: reduction in fish catch, reduction in diving tourism).
- Drawing an outline of a tree with the problem on the trunk.
- Brainstorming on the causes of the problem and drawing a root for each cause. Repeat the question why to elicit secondary causes and write those below the primary causes. Show linkages between primary and secondary causes by linking the roots.
- Brainstorming on the effects and impacts of this problem on the community. Identify primary and secondary effects. Diagram these as the branches of the problem tree..
- In a similar fashion, a solution tree can be developed by the group to identify strategies toward overcoming the problem and achieving a better outcome.

Fishers attracted by money lenders

Migration

EFFECTS

What happened?

What happened?

What happened?

What happened?

Quality of life decreasing

Fishers losing interest in fishing

Search for alternative livelihood

What happened?

What happened?

Income declining

What happened?

Fishers are not getting fish

What happened?

What happened?

LOW FISH CATCH

Why?

Why?

CAUSES

Why?

Overexploitation

Why?

Fish vulnerable to efficient gear

Why?

Fish may have migrated

Why?

Increasing population pressure in community

Why?

Overfishing of broodstock

Fishing operation in a wrong place

Figure 15a. Problem tree on low fish catch *(from IIRR 1998).*

Coral reef habitat quality improving

OUTCOMES

Quality of life improving

Fish stocks rising

What happened?

What happened?

Fish catch rising outside reserve

What happened?

Shift toward seaweed farming

What happened?

More sustainable fishing

What happened?

What happened?

REDUCTION IN RELIANCE ON FISHING

SOLUTIONS

How? *How?*

How?

Reduce catch effort

Gear restrictions

How?

Protect spawning areas

How?

Develop alternative livelihoods

How?

Enforce fishery regulations

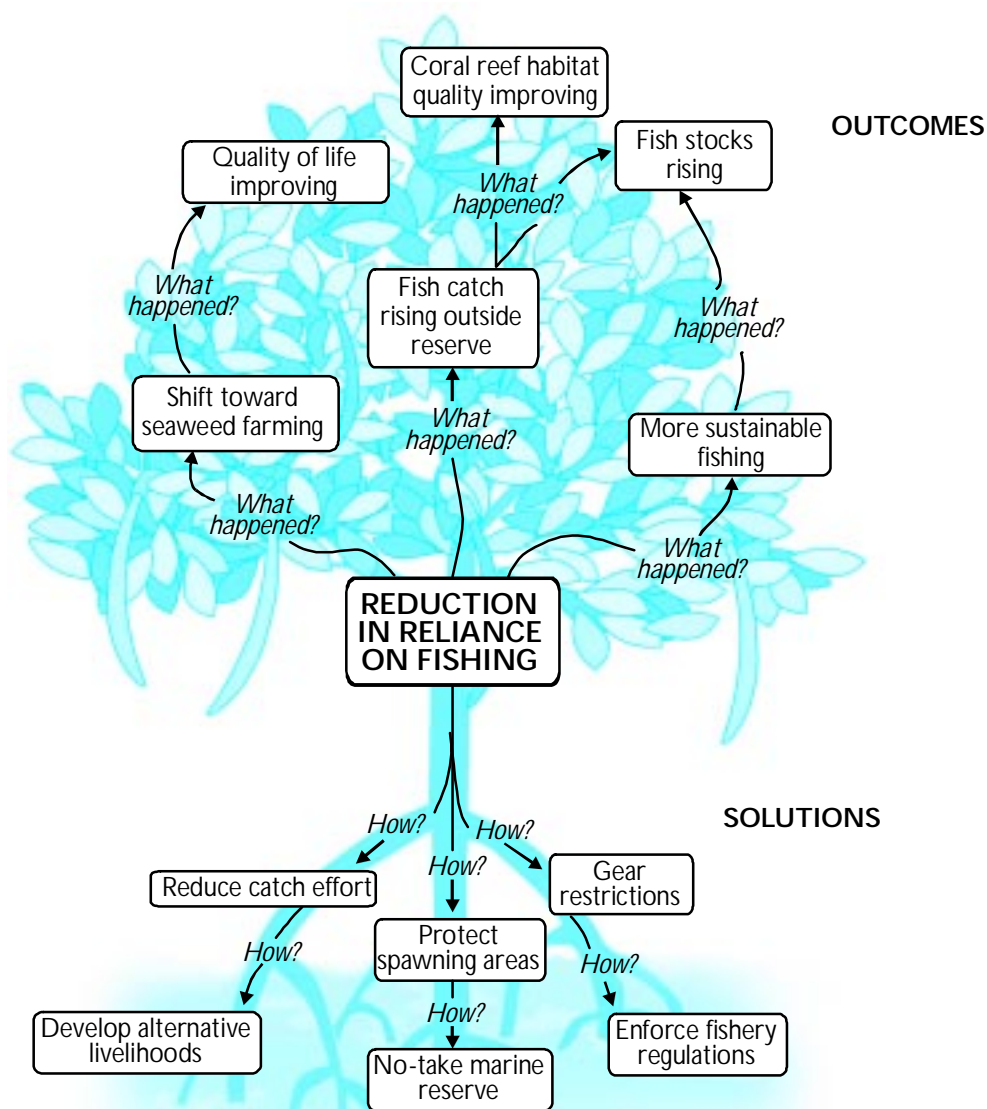No-take marine reserve

Figure 15b. Solution tree on reduction of reliance on fishing (from IIRR 1998).

Table 28. Participatory tool: Preference ranking.

Preference ranking allows the community to prioritize issues or options based on established criteria and individual preferences (IIRR 1998). This systematic ranking can be used to help the community identify the top concerns that should be addressed by their CRM plan, ranking objectives of the CRM plan, or selecting among interventions or activities within the CRM plan.

The approach involves:
- Holding a workshop of relevant stakeholders;
- Identifying and clarifying the issues or options and listing the options on a board;
- Establishing with the community the criteria for ranking or selecting among options;
- Asking each participant to score the options using a numeric system;
- Tabulating responses of the group members and summing the scores for each option; and
- Developing a consensus among the group for the selected options.

Example Preference Ranking (IIRR 1998)
A group of coral reef stakeholders (fishers, local NGO, tourism operator, fish trader) are discussing the merits of various fishing gear, and whether the use of some gear should be restricted. They decide to evaluate existing options on the basis of potential daily catch rate, risk of damaging the reef, and market quality of fish caught.

Options	Respondents						Total Score	Rank
	NGO Rep.	Tourism Rep.	Fish seller	Young fisher	Old fisher	Gillnet fisher		
Fish trap	2	3	3	2	3	3	15	4
Handline	5	4	5	3	5	5	25	1
Gillnet	4	4	2	5	4	4	24	2
Beach seine	4	2	3	3	2	2	16	3
Baby trawl	1	1	1	1	2	2	8	5

Results: The handline received the highest score which indicates it was the most preferred gear. The baby trawl received the lowest score.

Table 29. Participatory tool: Stakeholder analysis

Stakeholder analysis is a method to identify characteristics of the key groups involved with or affected by coastal resources and also examines the interests and relationship of these groups with regard to the resource. Stakeholder analysis also tries to identify coping strategies to minimize negative impacts of CRM efforts on stakeholder groups (IIRR 1998). Stakeholders are individuals or groups that are interested in, involved with, or affected by coastal resources such as fisher organizations, women's groups, and business sectors. The purpose of the analysis is to identify potential partners in the CRM planning process and to evaluate dynamics and relationships among groups in the community. A coping matrix identifies how stakeholders will deal with adverse impacts of the proposed activities. Steps in the approach to developing a stakeholder analysis and coping matrix include:
- Identify resource, activity, or plan to be evaluated by the group;
- Identify and list stakeholders (use Venn diagram approach described in Table 16;
- Prepare a matrix that creates categories for stakeholders that will be directly or indirectly affected in a positive or negative way by an activity or plan; and
- Have the group formulate strategies or activities in a coping matrix that will address stakeholder interests and concerns, especially those that will mitigate adverse impacts to stakeholder groups (see Table 29).

Table 30. Sample stakeholder analysis and coping matrix.

Proposed action: Develop a community-based eco-tourism project (whale-watching project) in a small island community	Positively affected (+)	Negatively affected (-)
Directly affected	Boat owners and operators, crafts vendors, local tour guides, existing women's organization, food vendors, beach cottage owners, whales	Traditional whale fishers, whale meat buyers, tour guides employed by big tour operators, children (potential victims of exploitation and sexual abuse)
Indirectly affected	Philippine Tourism Authority, Local Government Unit (*barangay* and municipal levels)	Whaling industry, consumers of whale

Stakeholder group	Possible impact of proposed action on stakeholder group	Potential reaction of the group and the implications of the proposed action	Recommended course of action (i.e. coping strategy)
Traditional whale fishers	May be forced to stop whale hunting due to the strong pressure from both community and proponents of the project.	They may in turn prevent family members or relatives to participate in the whale-watching project. May enjoin other community members to oppose the project.	1. Conduct intensive IEC at the community level on the economic and ecological benefits of protecting the whales. 2. Target the traditional whale fishers and their families as one of the beneficiary groups of the project.
Women's organization in the community	Women could engage in an eco-tourism-based enterprise and hence improve their family income.	May welcome the project because of its economic potential. Some may not be supportive of the project because they are closely related to the traditional whale fishers.	3. Involve them in the IEC activities. 4. Consider the group as one of the main participants and beneficiary of the project.

Develop CRM strategy and action plans

Identifying key interventions to promote CRM is the next step in the planning process. This step involves explicit identification of management strategies and actions, as well as the government, NGO, and community's implementation responsibilities in the plan. The community's CRM plan should be structured around the key components of capability building, sustainable livelihood development, resource tenure improvement, and environmental conservation and should reflect the community's visions. The CRM plan includes a clear definition of goals and objectives, broad strategies to address priority issues, and specific action plans that describe activities to be undertaken in the community to address priority issues. Initially, the first CRM plan in a community may be focused on a specific topic such as better management of fisheries and aquatic resources, planning of coastal tourism development, reducing marine pollution, or establishing and managing a marine reserve; however, in better prepared communities or in later stages of the process, the CRM plan may cover several topics in a more integrated fashion.

The LGU assists the community by integrating local strategies into the policy framework of larger scale ICM planning, providing logistics support and budget to conduct planning workshops, legally adopting the community's plan, and formalizing stakeholder endorsement (Table 31). The LGU and NGOs can work together to set up resource management core groups, write the CRM plan, and obtain stakeholder consensus and endorsement. The CO should facilitate the planning workshops, use participatory approaches to bring the community to consensus, provide training to the core groups, and assist the community in identifying strategies and actions. The community leaders and community members should participate in the development of strategies and actions, build consensus in the community on preferred actions, and provide input in the writing of the plan.

Many of the participatory tools already described such as focus group discussion and solution trees are useful in this phase. In addition, a strengths, weaknesses, opportunities, threats (SWOT) evaluation of alternatives is a tool that can be used to evaluate proposed actions (see Table 32). Formalizing stakeholder involvement in the CRM plan by holding a ceremony at the signing of the final plan or initiation of a key activity such as establishment of a marine reserve is a good way to build community support and understanding.

Table 31. Develop CRM strategy and action plans.

	Roles	Participatory tools and approaches
Community	◆ Participate in strategy development and formulation of action plans ◆ Provide information, data, and recommendations to finalize plan ◆ Build consensus in community	Conduct strategic action planning workshop Focus group discussions (see Table 26)
LGU	◆ Provide planning framework ◆ Integrate strategies into bigger policy framework and vice versa ◆ Logistics support ◆ Commit budget to the CRM plan ◆ Assist writing of the CRM plan ◆ Conduct community meeting to approve plan ◆ Legally adopt CRM plan ◆ Clarify implementing responsibility	SWOT (see Tables 32 and 33) Converting problem tree to solution tree and identifying actions (see Table 27 and Figure 15)
NGO	◆ Assist in setup of management bodies ◆ Assist in writing of CRM plan	Formalize stakeholder endorsement of final CRM plan with ceremony
CO	◆ Facilitate planning workshops and meetings ◆ Convene different stakeholders and community groups to participate in planning process ◆ Facilitate community cross-visits/study tours ◆ Provide training to core group in leadership skills ◆ Assist in developing strategies and building consensus and endorsement of plan	

Table 32. Participatory tool: Strengths, weaknesses, opportunities, threats (SWOT).

SWOT analysis is a strategic planning tool that is used to (1) assess a community or organization's capability to carry out an activity; (2) determine an appropriate site for an activity; or (3) evaluate a program to determine its suitability for the community's needs. Strengths and weaknesses are identified as positive and negative aspects of the group, site, or activity. Opportunities and threats reflect external influences that may have favorable or unfavorable impacts on the group or project. SWOT analysis can also be used in conjunction with stakeholder analysis and coping matrix tools to identify constraints and challenges to CRM. The approach involves:

◆ Clarifying the item to be assessed with SWOT (e.g. an evaluation of a group's ability to carry out a planned intervention, the suitability of a site for marine reserve status, or the appropriateness of an alternative livelihood project);

◆ Define the terms such that strengths and weaknesses reflect internal aspects of the group, site, or activity while opportunities and threats reflect external influences;

◆ Have the group list strengths, weaknesses, opportunities, and threats and group similar items within each category; and

◆ Analyze the results by determining how strengths can be used to counter threats or take advantage of opportunities and how weaknesses can be overcome; use this information to develop a list of strategies and actions.

Table 33. SWOT analysis of a mangrove reforestation project (IIRR 1998).

Activity/Organization/Site	Strengths	Weaknesses
The capacity of a community-based organization to implement a mangrove reforestation project	◆ We have a youth group that is willing to work on the replanting ◆ Rico has plenty of bamboo offcuts that could be used as stakes	◆ We do not know how to do the transplantation ◆ We have no money for the project ◆ Most community members are more interested in their own activities

Opportunities	Strategies/Actions
◆ We do not need to buy propagules because we can collect them for free ◆ We have the abandoned fishpond which we could use for the project ◆ The new Mayor supports environmental projects ◆ The university has people who know about mangrove reforestation ◆ An NGO is providing livelihood assistance in the area	◆ Contact the university to ask assistance in training and environmental education ◆ Discuss the problem about the fishpond owners with the Mayor ◆ Hold a meeting with the youth group and other members of the community ◆ Design an incentive scheme for those who would be planting and maintaining the plantation ◆ Link with NGOs for possible assistance in livelihood program
Threats ◆ Fishpond operators want to clear more of the mangroves ◆ Some community members cut mangroves for firewood	

PHASE 3: ACTION PLAN AND PROJECT IMPLEMENTATION

During this stage, the community and LGU implement the CRM plan through a variety of activities or projects such as alternative livelihood projects, mangrove reforestation projects, establishment of marine reserves, or creation of community surveillance and enforcement teams. Implementation structures such as committees, task forces, and management councils should be established as well as administrative systems for communication and finance.

The basic steps in the process include:

◆ CRM plan implementation;
◆ Legislation and regulation;
◆ Law enforcement;
◆ Revenue generation; and
◆ Annual program preparation and budgeting.

Table 34. Case study: CRM plan for Cangmating Barangay (Sibulan, Negros Oriental).

Barangay Cangmating is located 6 km from Dumaguete on the Tañon Strait and is in one of CRMP's learning areas. The *barangay* produced a coastal profile using the PCRA method and used this information to develop objectives and activities in their CRM plan. The community assessed their coral reefs to be in fair condition and their seagrass beds in poor condition. Problems and issues identified by the community included fishing by outsiders, siltation, illegal construction of a seawall, illegal reclamation, beach erosion, theft of fish from fish pots, improper solid waste disposal, and the presence of scuba divers. The *barangay* developed a CRM plan to address priority issues that are summarized below.

Specific objectives	Activities	Expected outcome	Source of funding
Regulate fishing by outsiders	Pass a resolution to regulate fishing by outsiders and conduct sea patrols	Approved resolution and regular patrols conducted	Donations, *barangay*
Stop illegal beach quarrying	Conduct an information drive on the prohibition of beach quarrying and enforcement of ordinance on beach quarrying	Beach quarrying decreased or stopped	*Barangay*
Enforce national laws and local ordinances regarding illegal construction of seawall and reclamation	Review national laws and local ordinances; conduct information drive and hold a meeting of landowners	Barangay residents and landowners made aware of the existing municipal ordinances and national laws; laws and ordinances enforced.	LGUs, *barangay*, CRMP, DENR, PAO
Promote proper solid waste disposal	Conduct training/ seminars on solid waste management and place signs and garbage cans in strategic locations	Three training/seminars conducted and two garbage cans and signs placed in every purok for a total of 12 each	Barangay

(Source: Murphy *et al.* 1999)

Small-scale farming of edible seaweed, such as Caulerpa*, has provided another source of income for coastal communities.*

The LGU should establish a CRM implementing structure and ensure sustainability by approving supporting ordinances, institutionalizing commitment of staff and budget to the CRM plan, and ensuring enforcement (Table 35). The NGO can facilitate this process by providing seed money for pilot projects, conducting training, building alliances and networks in the area, and advocating for the community. The CO should help to build the capability of the community to implement the plan by conducting training, formalizing organizations by registering them with the government, and facilitating implementation activities.

Table 35. Action plan and project implementation.		Participatory tools and approaches
	Roles	
Community	◆ Actively participate in implementation ◆ Set up committee/task groups to ensure smooth implementation ◆ Attend ongoing education and training activities	Establish and manage community supported marine reserve
LGU	◆ Support LGU staff implementing the CRM plan ◆ Ensure sustainability by institutionalizing budget and personnel and committing annual program support ◆ Establish a CRM implementing structure at the LGU level ◆ Draft and endorse CRM ordinances ◆ Support collection of revenue; use revenue to further CRM efforts	Manage mangrove areas under CBFMA Develop alternative livelihood projects
NGO	◆ Assist in drafting ordinances ◆ Provide seed budgets ◆ Conduct training ◆ Provide technical assistance	Implement environmental education program Community surveillance and enforcement teams
CO	◆ Conduct training courses as needed (skills training, conflict management, etc.) ◆ Build capabilities of community to access funds ◆ Train and involve community in implementation activities ◆ Formalize organizations, e.g., register organization with appropriate agency ◆ Assist community organization in strengthening and expanding organization through federations, network, coalitions, or alliances ◆ Identify and train second-line leaders	Fishpond conversion and mangrove rehabilitation projects Study tours Negotiation and conflict resolution

In addition to participating in the planning process, it is very important to involve community members in implementation activities that have been identified in the CRM plan. Study tours and specialized training can be used to broaden the capabilities of community members and provide opportunities for knowledge transfer. The following are some examples of CRM implementation activities in which the community could participate:

Establishment of marine reserve

Establishment of a community-based marine reserve to protect local marine resources is an activity that has proven to be very effective (Christie *et al.* 1994; White *et al.* 1994). Having the community members use their coastal profile and knowledge of the resources to select an area for special management status, working to develop community goals for the reserve, and creating a reserve management plan using a participatory process will promote the acceptance and stewardship of marine resources (see *Guidebook 5: Managing Coastal Habitats and Marine Protected Areas*).

Mangrove forest management

Reversion of fishponds or rehabilitation of degraded habitat to mangrove forest is a labor-intensive, community-building activity that promotes coastal resource protection by providing nursery habitat for fisheries and protecting coastlines from erosion. Community-based Mangrove Forest Management Agreements (CBFMA) are supported by DENR (DAO 96-29) and provide a means of allowing local communities to manage and retain benefits of sustainable use of
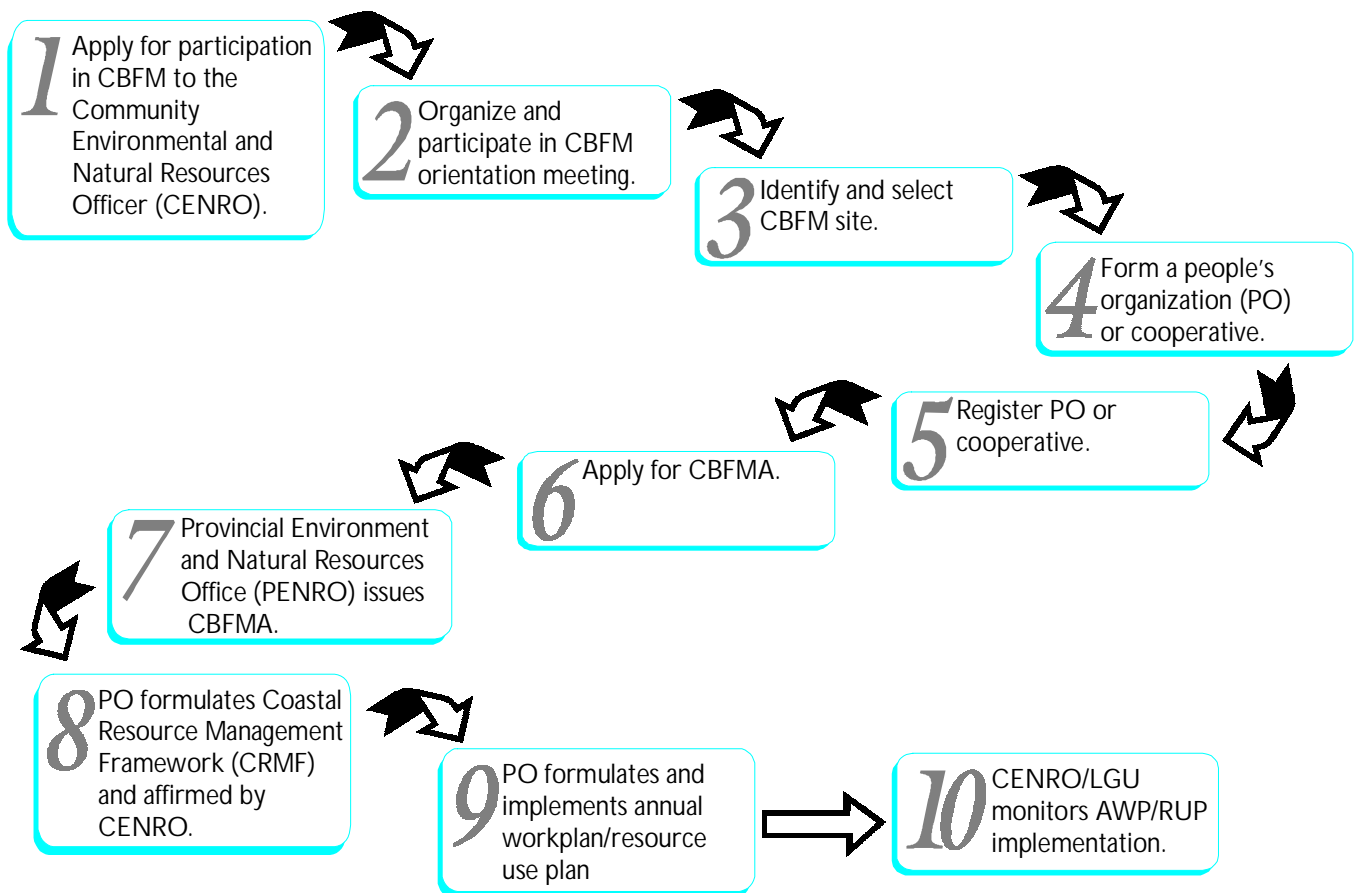

Figure 16. Process for establishment of community-based forest management (CBFM) projects within mangrove areas.

mangrove resources (see *Mangrove Management Handbook (*Melana *et al.* 2000). Community–based mangrove forest management projects can be implemented in the process described in Figure 16.

Community surveillance and enforcement

Surveillance by local community members can be used to document activities and use of managed areas or resource and may be specifically focused on infringements of the CRM plan or local regulations.   Surveillance is an activity in which community involvement is desirable since the local community members are most familiar with the resource and the local resource users; surveillance may also provide a deterrent function by convincing potential offenders that their activities have a high chance of being detected (Kenchington 1988).   Local communities can be involved in incidental observations and planned patrols such as the Bantay Dagat or may operate in collaboration with local government enforcement agencies such as the Coast Guard (see *Guidebook 8: Coastal Law Enforcement*).

Alternative livelihood development

The implementation of alternative livelihood development projects can be very effective in promoting other sources of income that can encourage fishers to switch from destructive fishing practices. Some examples of entrepreneurial projects that have been successful in Philippine coastal communities include seaweed farming, birdwatching tours and other forms of ecotourism, and handicrafts.

Implementation activities can often lead to conflicts that need to be resolved. Conflicts over access to coastal resources are common. These conflicts can be seen as internal to the community (access to fishing areas, corruption within community, breaking of rules/regulations by locals, etc) or resulting from external sources (foreign vessels, non-resident fishers, illegal entry, corruption at levels above community, etc). Community access to legal support and advocacy is critical in resolving these types of conflicts. Many conflicts can be avoided by early participation by all stakeholders and regular communication. Predicting the potential negative impacts of CRM actions on different groups of stakeholders and working to mitigate those impacts (such as through alternative livelihood development) before they occur are important for long-term success.

Conflicts, such as resource use conflicts when one's livelihood is threatened, are taken personally by the parties involved. In dealing with conflicts, care must be taken to consider the sociocultural attributes of the people involved. Among many Filipinos, the following characteristics can be important in how conflicts are resolved (Oposa 1996):

- **Filipinos are highly personal:** When people have problems with one another they would rather settle things privately rather than have them settled in a public forum.
- **Debt-of-gratitude:** If a favor is owed, refusal to fulfill the debt is a source of shame.
- **Saving face:** Loss of face is a harsher sanction than a legal sanction. A large fine paid quietly will inflict less pain than a smaller fine made public.

The role of the community organizer is very important in helping the community deal with conflicts related to resource use and management in the community. Methods for resolving conflicts, especially at the community level, involve the use of collaborative processes. The most commonly used methods are negotiation and consensus building (Tables 36 and 37 and Figure 17).

Table 36. When to use the process of consensus building to resolve conflicts *(adapted from Carlson* et al. *1999).*

The consensus process is likely to be appropriate when:	The consensus process is less likely to be appropriate when:
✓ the issues are of high priority and decision is needed; ✓ the issues are identifiable and negotiable; ✓ the issues do not focus primarily on constitutional rights or fundamental values; ✓ the interests are identifiable and it is possible to find a representative for them; ✓ the outcome is genuinely in doubt; ✓ there is enough time and resources to support the process; ✓ the political climate is favorable; ✓ no single entity has complete control over the solution; and ✓ there is a relative balance of power among stakeholders, and they are likely to have ongoing relationships.	✗ legal clarification is needed; ✗ there is a need for a judicial precedent to clarify the law of guide future conduct; ✗ the level of concern about the issue is not great; ✗ the situation does not allow time for negotiation; ✗ the community is so polarized that face-to-face discussion is not possible; ✗ negotiations will substantially affect persons who cannot be effectively represented; and ✗ the sponsor does not commit to implementing the agreement.

Table 37. Participatory tool: Basic steps in negotiation.

Negotiation is a process by which two groups reach some kind of agreement. The CO plays the role of the mediator to assist the parties in dispute to explore their interests, develop and evaluate opinions, and negotiate mutually acceptable settlement of their differences. A mediator has no authority to make a decision; rather, he/she focuses on training the group to do effective negotiation. The following is a six-step guide to doing effective breakthrough negotiation (Ury 1991):

Step 1: Do not react. Distance yourself from your natural impulses and emotions. Pause and take time to think, see the situation objectively and recognize the tactics of your opponent.

Step 2: Disarm your opponent. Listen attentively and acknowledge your opponent's points; express your views without provoking your opponent; create a favorable climate for negotiation.

Step 3: Reframe. Recast what your opponent says in a way that directs attention back to the problem by asking problem solving questions, reframing tactics, or negotiating the rules of the discussion.

Step 4: Make it easy to say yes. Make it easy to say yes by building a bridge, involving your opponent, satisfying unmet interests, and helping your opponent save face.

Step 5: Make it hard to say no. Warn but do not threaten. Use a best alternative to a negotiated agreement.

Step 6: Forge a lasting agreement. Translate the willingness to negotiate into a firm agreement.
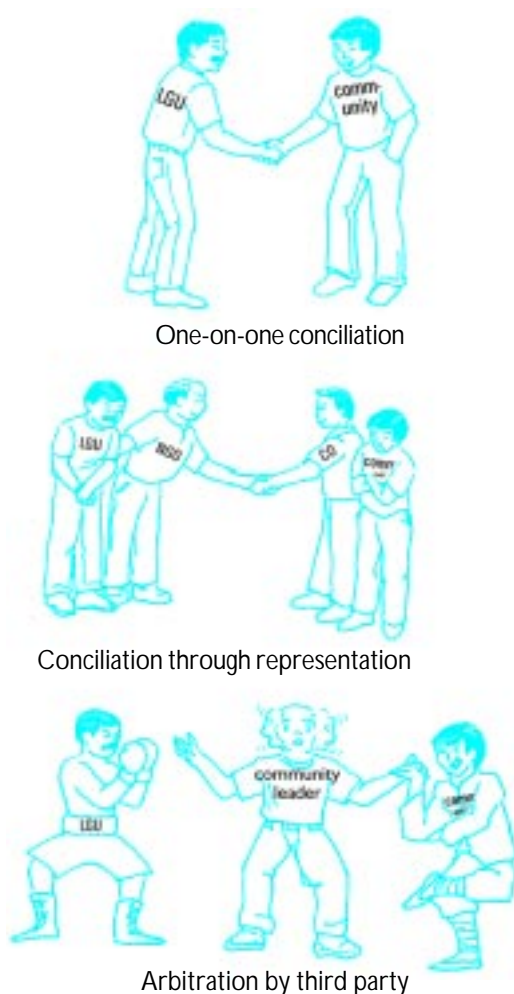
One-on-one conciliation

Conciliation through representation

Arbitration by third party

Figure 17. Methods of conflict management (modified after SMISLE 1999).

PHASE 4: MONITORING AND EVALUATION
Monitoring is conducted at regular intervals to assess the progress and success of CRM efforts. Effective monitoring depends on selecting appropriate indicators early in the process so that changes over time can be measured and compared to baseline conditions. Evaluation of monitoring results allows for a refinement of the CRM program if objectives are not being met or have changed. The role of the community in monitoring and evaluating progress of CRM implementation should be emphasized. Allowing the community to play a large role in monitoring and evaluation will help to build consensus on the development of new strategies, if needed. Support for the plan increases when the community can see the benefits and observe changes in condition of the resources over time. Monitoring of local compliance with the plan will help to identify areas where additional interventions may be necessary.

The LGU should spearhead monitoring of the effects of implementation activities using clearly defined socioenvironmental or administrative indicators as described in *Guidebook 3:*

Coastal Resource Management Planning. A monitoring and evaluation team should be established and a database set up to store the data for documenting the condition and use of coastal resources over time. The LGU and NGOs can provide technical assistance and training, but resource monitoring should be conducted in a participatory approach with the community (Table 38). The CO can organize monitoring teams, assist in data collection, and facilitate community feedback. The community members should provide information, assist in the monitoring and evaluation of their plan.

Table 38. Monitoring and evaluation.		Participatory tools and approaches
	Roles	
Community	◆ Set up and implement monitoring mechanism at the community level ◆ Volunteer as member of monitoring team	Accessible database and information retrieval systems
LGU	◆ Spearhead monitoring of implementation of plans ◆ Continue to improve database system ◆ Link with community and support monitoring teams ◆ Provide technical assistance (monitoring) to community ◆ Provide feedback and data to external evaluation team ◆ Use data to revise plan and update information system	Monitoring training sessions Workshops and focus group discussions Community monitoring teams
NGO	◆ Organize and train monitoring teams ◆ Assist in data analysis ◆ Work closely with LGU to strengthen monitoring and data base system	Conflict resolution (see Table 37)
CO	◆ Train community to monitor progress of activities as well as condition of habitats and resources ◆ Facilitate community reflection and feedback sessions	Negotiation (Table 38)

MARIA FE PORTIGO

A sense of ownership and responsibility for coastal resources is enhanced by community assessment, monitoring, and evaluation.

LGU and community monitoring teams and community surveillance and enforcement teams provide the raw data that will be used in the evaluation of the success of the CRM plan. Making these data available to the community in an accessible database gives the needed information to judge the success of the plan or need for refinement. Discussing this information in workshops and focus group discussions and involving community members in providing feedback to the plan is critical.

Taking conclusions of the monitoring and evaluation and using them to update the information base and refine the plan is the last step in the process yet one that ties directly back to the first step. CRM plans are never finished but are part of an iterative process to refocus the effort where it is most needed and will have the most impact. Objectives and goals need to be reformed over time and new activities need to be identified. Focusing efforts on problem solving, resolving resource conflicts, identifying new priority issues, and refining the CRM plan requires a long-term commitment and the training of second-line leaders to carry the process forward.

The LGU and NGOs should convene teams to evaluate the monitoring results and to update the database; outside or external reviewers can be very effective in providing input on the success of the plan. The CO should assist in facilitating discussions and obtaining feedback from the community. The community's input and feedback on what has and has not been successful in the CRM plan is very important. Focus group discussions and workshops can be effective tools to elicit this information. The CRM plan should be focused and refined to better meet the resource management and other needs of the community. The planning process should be initiated again to produce a better CRM plan or to tackle new issues that have gained priority.

PHASE 5: INFORMATION MANAGEMENT, EDUCATION, AND OUTREACH

Information management, education, and outreach are very important elements in the CRM planning and implementation process. While these components should be initiated early in the process, they are most important in later phases to evaluate changes in resource conditions and to promote sustainability of the CRM efforts. Information management systems allow the LGU and community to store and analyze data that will be used to evaluate the success of the CRM strategies. Information, education, and communication (IEC), a process of education and outreach aimed at improving public awareness and support of CRM efforts and creating a critical mass of concerned citizens, is discussed in more detail in Chapter 5.

The LGU should take the role of processing and storing data through a functional and institutionalized information management system (Table 39). Annual CRM status reports and maps should be prepared and disseminated to provide the basic information needed to revise plans. NGOs can provide training in information systems and IEC strategies and assist with development of appropriate training and education materials. The CO should work to train second-line leaders and prepare the community to continue the process without external facilitation.

Table 39. Information management, education and outreach.		Participatory tools and approaches
Roles		
Community	◆ Provide feedback to CRM plan revision ◆ Provide information ◆ Assist in community education	Accessible database and information retrieval system
LGU	◆ Process data into useful information ◆ Continue to improve database system ◆ Use data to revise plan and update information system ◆ Disseminate information	IEC tools: mass media, community outreach, training (see Chapter 5)
NGO	◆ Design information system ◆ Provide training ◆ Assist with development of educational materials	ICM training of second-line leaders
CO	◆ Train second-line leaders ◆ Conduct workshops, training sessions, group discussions	Workshops and focus group discussions

MARIA FE PORTIGO

Community participating in setting a common vision and identifying goals and objectives using the workshop format.

SANDRA ZICAS

Seaweed farming, using the netbag method, is providing one alternative to fishing in many local communities.

ALAN WHITE

Local PCRA group in San Vicente (Palawan) discusses coastal resource use and condition prior to mapping efforts.

chapter 5
Information, education, and communication

Environmental issues in the coastal zone are generally complex, and the environmental education or public awareness component of a CRM program requires a comprehensive and holistic approach to communication at the community level. IEC is a process through which knowledge is imparted to coastal communities to increase their awareness, understanding, and appreciation of the coastal environment and its importance. IEC introduces ecological concepts and principles related to environmental issues experienced by the community and enables the community to take the appropriate action to address them. Communication has several functions in coastal management including:

- Reducing social conflicts and resource impacts;
- Gaining support for management programs;
- Increasing knowledge of local coastal resource users; and
- Fostering participation in community-based management.

Communication should be used to impart information in a way that increases public understanding and appreciation for coastal resources and CRM planning, and ultimately achieves behavior and attitude changes (Flor and Smith 1997; Kay and Alder 1999). IEC programs should present information in an accessible and easily understood format to broad audiences to raise the awareness about the coastal environment. For the CRM process to gain support requires that coastal issues be considered a priority problem that requires immediate attention and action by the community (Smith *et al.* 1999).

IEC is a process built around those activities designed to help create an environment conducive to changing individual behavior in favor of the objectives of CRM. Only when environment-friendly behaviors and practices are widespread throughout the community can resource use and management be truly sustainable. IEC is focused on building a constituency for CRM, a critical mass of the population who are environmentally literate, imbued with environmental ethics, shared responsibilities, and shared actions (Figure 18 and Table 40) (Flor and Smith 1997).

IEC should be a continuing process throughout the community organizing and CRM planning process. Key components include use of media, development of CRM education tools, and utilization of community organization networks. It should also involve as many sectors as possible, focusing efforts on those sectors and key players that would lead to the greatest positive impact in the shortest amount of time (these key players are referred to as pressure points).
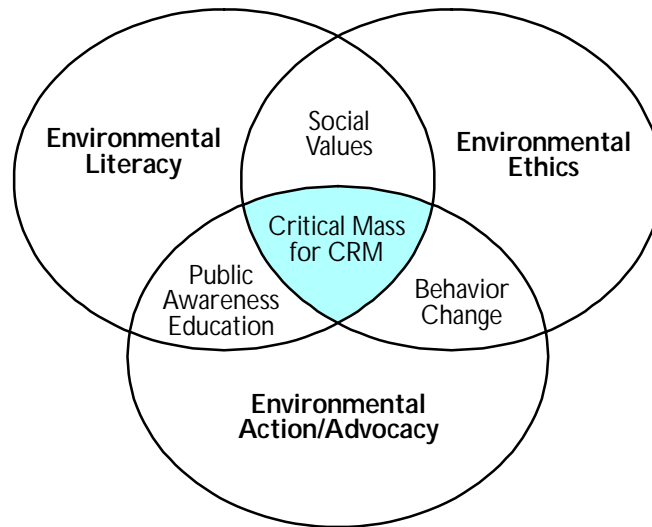
Figure 18. Framework for information, education, communication.

Table 40. Definition of IEC terms.

Environmental Literacy: An environmentally literate person understands the basic principles of ecology and the impact of humans on the environment. This awareness is essential for effecting behavioral or social change in regard to people's relationship with the environment around them.

Environmental Ethics: Environmental ethics are values and attitudes toward the environment that shape and reinforce people's individual behaviors and collective impacts in a manner that promotes sustainable management and use of resources.

Environmental Advocacy: Environmental advocacy occurs when awareness has reached a critical point where individuals, agencies, or organizations become moved to support or defend an environmental issue.

At the early stages of the CRM process, IEC can help build consensus that a set of problems needs attention and an integrated solution; clarify perspectives and local interests; and generate a receptive political and social context for change. During later stages, IEC can have significant social impact in terms of affecting policy development and sustaining CRM advocacy at the community level. Community-level tools include school programs, poster and essay contests, beach cleanup activities, and many others.

Table 41. Ways in which IEC supports the CRM process.

- Creating positive change in values and behavior of individuals and the community, particularly in their perception and relationship toward the natural environment;
- Promoting behaviors which are "friendly" to the environment;
- Moving the community to actively participate in conservation and resource management programs; and
- Enabling the community to assert its right to use and manage its resources and the benefits that can be derived from those resources.

MODES OF PROGRAM COMMUNICATION

There are four major approaches that can be used singly or in combination to implement IEC: social marketing; development and program support communication; social and community mobilization; and advocacy or institutionalization.

Social marketing

The term "social marketing" was first introduced in 1971 to describe the use of marketing principles and techniques to advance a social cause, idea or behavior (Kotler and Roberto, 1989). Since then, the term has come to mean "a social-change management technology involving the design, implementation, and control of programs aimed at increasing the acceptability of a social idea or practice in one or more groups of target adopters" (Kotler and Roberto 1989). Social marketing utilizes concepts of market segmentation, consumer research, product concept development and testing. Overall, the social marketing approach is very systematic and planned, with all stages of the program clearly mapped out with objectives and behavioral targets. Among the more effective tools used in social marketing are advertising and public relations, promotions and publicity via mass media, special events, celebrity endorsements, testimonials, and advocacy campaigns.

Development and program support communication

This mode involves the development, production and dissemination of IEC materials for use in the local CRM process where communication is viewed as supportive to the technical activities of an organization or project. The goal of this effort is to provide the community the necessary information materials to increase its knowledge and appreciation of coastal and marine environments, basic ecological principles, the various threats to the environment, and what community members can do to help promote CRM. Materials commonly produced to enhance awareness include posters, short publications, newsletters, comic books, leaflets, radio and television plugs, info-commercials, and radio dramas. Reference materials on CRM such as coastal environment profiles, case studies and success stories, information on basic ecological principles and coastal ecosystems as well as information on specific CRM interventions such as marine sanctuaries, coastal zoning, CRM planning, guidelines on foreshore development, etc. are invaluable in the development and formulation of CRM programs.

Social and community mobilization

Social mobilization has been defined as "the process of bringing together all feasible and practical inter-sectoral social allies to raise people's awareness of and demand for a particular development program, to assist in the delivery of resources and services and to strengthen community participation for sustainability and self-reliance" (McKee 1992). This approach focuses on collective action and uses public participation processes and techniques to bring about consensus and to inform and educate the public about CRM (see Table 42). Through use of participatory techniques, people's awareness, knowledge, ability and motivation to make decisions about their future are inculcated. Common participatory tools include workshops, public meetings, study tours, advocacy campaigns, committees, community patrols, citizen watchdog groups, school programs, and special projects involving the community or various sectors of society.

Table 42. *Case study: Mobilizing the private sector to the call for action for CRM through "Our Seas, Our Life" exhibit.*

1998 was the International Year of the Ocean (IYO). CRMP in partnership with the National Commission on Marine Sciences with support from Silliman University, National Museum, and DENR's Protected Areas and Wildlife Bureau and a host of private sector sponsors organized the "Our Seas, Our Life" travelling exhibit. The exhibit was launched in Cebu City in February 1998 and travelled to key cities in the Philippines until December 1999, drawing approximately 1.4 million viewers. A huge success, the exhibit proved invaluable in calling national media and public attention to coastal issues. It was also a highly effective social marketing tool, providing a forum for discussion of CRM problems and solutions among a wide range of sectors in the cities visited.

At the local level, crucial to the success of the "Our Seas, Our Life" was the participatory way by which it was organized. Whether held in the polished interior of the a mall in Metro Manila or the public market of Dumaguete City, the exhibit became an occasion to "connect" people and organizations from many sectors and involve them in the advocacy work for CRM. To this end, the preparations leading up to the exhibit were as important as the exhibit itself. Various groups were encouraged to participate and were recognized as co-organizers, so that they felt a sense of pride in the exhibit's success. In many areas, this opened the way for closer cooperation among the different groups involved in CRM promotion, building partnerships that endure to this day. More than 60 private sector companies from diverse industries – hotel, airline, beach resort, shipping, food and beverage, print and broadcast media, retail, garment, computer, banking, transport, oil – etc. heeded the request for logistical support in the seven cities where the exhibit was mounted.

The IYO was also the occasion to launch the "I Love the Ocean" Movement (ILOM). ILOM was initiated by CRMP to provide a forum for the general public to participate in the discussion of CRM issues and help advocate the CRM cause. Housewives, business people, doctors, nurses, policemen, students, factory workers, scuba divers, teachers, media practitioners, priests, nuns, movie stars, artists, etc. – some with their entire families – came out through voluntary membership (for a fee of PhP50 [US$1.25] to support the cause of marine conservation. To date, there are more than 13,000 card-carrying members of the ILOM.

Through all this, CRMP and its partners maintained an inclusive and "connective stance" welcoming everyone who cared enough to want to become part of the CRM process, and linking individuals and groups so they could work together in areas where they could be most effective. Strategic partnerships were pursued with church-based groups, professional, civic, and professional organizations, POs, the Philippine Navy, the Philippine Coast Guard, the Philippine Coast Guard Auxiliary, the Boy Scouts and Girl Scouts of the Philippines, and the business sector. Recognizing that the fastest way to gain entry to the corporate sector was through the marketing door, CRMP and its partners staged public and media-oriented events designed to promote CRM messages as well as allow sponsoring business corporations and private sector groups to achieve some public visibility and goodwill. Along this line, local community parades, quiz bowls, painting and headress-making contests were staged to general public attention and support as well as media mileage to the activities.

Even more significant perhaps, is that many of the strategic partners have adopted CRM as their institutional cause. Banco Filipino Mortgage and Savings Bank, which first got involved in the initial staging of the exhibit has organized its own information and public awareness campaign on marine conservation. Petron Foundation, through its Foundation, has embarked on a project promoting CRM in its areas of operation. The Central Luzon Regional Council of the Girls Scouts of the Philippines has adopted the Blue Tapestry, a community arts project promoting marine conservation, as a mainstay activity for their regional family camp.

Excerpted from CRMP (2000)

Advocacy and institutionalization

Advocacy has been defined as "putting a problem on the agenda, providing a solution to that problem and building support for acting on both the problem and the solution" (AED n.d.). Advocacy consists of different strategies aimed at influencing decision-making at the organizational, national, provincial, and municipal levels and can include lobbying, social marketing, public education activities, community organizing, media campaigns, signature campaigns, and other such "techniques".

Institutionalization on the other hand, directly addresses the need for ensuring the sustainability of the CRM process. Using the approaches just described, an IEC program on CRM can, in a deliberate manner, push for the adoption by social, economic, and political institutions of the principles and systems that will ensure the continuous, long-term implementation of CRM. Such institutions would then employ any of the approaches mentioned above to ensure the prioritization of CRM in the national and local agenda.

Table 43.   Case study: Advocacy program: Partnerships can make the difference.

One of the more successful IEC activities initiated by CRMP and its partners in the province of Cebu was its advocacy program directed at LGUs in the southwest and southeast parts of the province. As part of its expansion strategy, CRMP sought to catalyze the inclusion of CRM in the local agenda of Cebu province and its coastal municipalities. In this regard, CRMP facilitated the organization of the Cebu CRM Partners consisting of the regional offices of national agencies, donor-assisted projects and the province of Cebu to work together to promote CRM at the municipal level. Through advocacy and the use of participatory workshops and meetings, the LGU advocacy program resulted in a total of 17 southwest and southeast coastal municipalities to date, responding positively to the call for action to implement CRM.

A salient feature of this LGU advocacy program was the "cluster of municipalities" concept which allowed for a wider geographic reach of CRM interventions and underscored the importance of inter-LGU collaboration and coordination in addressing CRM problems and issues. Incorporating the educative functions of peer learning, the cluster concept promoted not only cost-efficiency, but also allowed for the airing of common grievances and collective solutions to problems. IEC interventions by way of workshops and meetings were conducted as a cluster and the resulting outputs included the identification of common goals and workplans, the cost-sharing of expenses, and pooling of personnel resources. A Technical Working Group among the cluster municipalities serves as the primary mechanism in ensuring an inter-LGU approach to critical CRM isssues/problems.

Complementing the "cluster of municipalities" concept was the synergy approach employed by the CRM Partners group that collectively worked together in providing CRM technical assistance, IEC, and training to these coastal municipalities. The ensuing synergy of DENR, BFAR, DILG, and such donor-assisted projects as CRMP of the United States Agency for International Development, and the Coastal Resource Management Office of the Province of Cebu supported by the German Development Service, resulted in the creation of a cost-efficient, more harmonized, and integrated delivery of technical assistance and services to these coastal municipalities. Such synergy also allowed for the strengthening and institutionalization of CRM in the Provincial Planning and Development Office of the province of Cebu as well as in "jumpstarting" CRM at the municipal level.

Contributed by Rebecca Pestaño-Smith, IEC Advisor, CRMP

BUILDING PARTNERSHIPS FOR CRM: A KEY UNDERLYING IEC STRATEGY

Building partnerships must be a key underlying IEC strategy in all development programs. In the context of CRM, this is a process that seeks to mobilize the resources and energies of various players and sectors toward achieving a common goal – to empower coastal communities in managing and sustainably developing their resources. The IEC process must be integrative and inclusive across the different sectors, bringing together various groups with diverse roles to work for a common goal. Given that CRM reflects a paradigm shift in fisheries development and management, the building of partnerships and alliances is critical to promoting new social, political, and economic norms in coastal management and offers the following benefits:

- Jumpstarts the process of transformation through the initiation of social processes within the partners and alliances;
- Creates the promotion and development of a CRM-oriented mindset within and among partners that is supportive of CRM principles and processes;
- Fosters dialogue and understanding among various sectors of the community and brings them to a consensus on certain principles, issues, and resolutions relating to a particular resource or the coastal environment in general (see Table 44);
- Builds on the unique strengths of various organizations toward the achievement of a common goal; and
- Mobilizes resources and funding for implementing CRM programs.

IEC OPPORTUNITIES AT THE COMMUNITY LEVEL

Lack of funds as well as trained personnel are generally the common reasons cited by CRM implementors faced with the tasks of undertaking IEC. But while these are limiting factors, opportunities do exist in undertaking a good IEC program at the community level. Among these are:

1. Coastal communities now display a very high level of awareness with regard to coastal issues and problems and the range of possible solutions to address them (CRMP-MBL 2000). Such awareness can be built upon to generate a broader support for CRM.

2. The CRM process calls for multisectoral collaboration and cooperation. Tapping various sectors to work together results in easier coordination and increases the number of people who may be tapped to do IEC work.

Table 44. Case study: Resolution of resource use conflicts.

Given the steady decline of municipal fish catch in the face of increasing population, dwindling fish stocks, overfishing and habitat destruction, resource use conflicts at the *barangay* level are now becoming common.

In one of the coastal municipalities of the southwest Cebu, conflicts over "who gets to fish where in the municipal waters" almost threatened the peace and order situation of this sixth class municipality. Subsistence fishers from one *barangay* had unilaterally declared the waters fronting their *barangay* as a marine sanctuary and declared the area as "off limits" to other fishers from the municipality. They claimed that their neighboring fishers employed fine mesh nets, thereby contributing to growth overfishing in their area.

The affected neighboring fishers objected to the arrangement and accused their co-fishers of "appropriating" the municipality's traditional fishing ground for themselves. They countered that these fishers were more guilty of causing overfishing with the presence of numerous privately owned fish corrals in the so-called marine sanctuary. Confrontation after confrontation between these two groups finally led to the airing of death threats and close encounters of physical violence. The mayor of the municipality asked the assistance of the CRM Partners in resolving this increasingly threatening conflict. A series of dialogues were scheduled and the partners worked together to facilitate an amicable discussion and consensus building of possible solutions.

Prior to the conduct of dialogues, the CRM Partners conducted an underwater assessment of the municipality's fishing grounds and coral reef areas. Such assessment was complemented by a video documentation of the state of these coral reefs and so-called marine sanctuary. The CRM Partners also sought to assess the severity of the situation by conducting focus group discussions (FGDs) with the two contending parties.

The initial FGDs identified who among the fishers had leadership and influence among their fellow fishers. The FGDs also illustrated the misconceptions held regarding marine sanctuaries as well as revealed the increasingly growing feelings of desperation over their dwindling fish catch.

Bearing in mind these initial findings, the CRM Partners agreed as a strategy, not to be confrontational with the fishers. Through a participatory problem solving/collective decision-making approach, the two groups were taken through the critical thinking and analytical thinking stages that allowed them to see their problems as objectively as possible. Such non-confrontational approach defused the emotional tensions between the two groups and allowed for sobriety and a less emotional approach to the problems. The dialogue resulted in the fishers agreeing to set aside an area within their fishing grounds as a restricted area, the dismantling of a good number of fish corrals, and the stoppage of the use of the fine mesh nets, with the fishers agreeing to "police" one another and in the absence of a municipal ordinance, to respect the jurisdiction of each group to enforce these agreements. The fishers also collectively agreed to commit to a a longer-term solution to these problems and to work with the municipality in developing, implementing, and monitoring a CRM program. The workshop ended with the two groups shaking hands and professing commitment to abide by the initial areas of agreement.

To date, the two groups now work together in enforcing these agreements and the effectiveness of the reconciliation of the two "warring" groups was clearly illustrated as they worked side by side in conducting a PCRA in their municipality and taking leadership in consulting their fellow fishers in the CRM planning process. The two groups are likewise represented in the Technical Working Group (TWG) of the Cebu Southwest cluster, as well as in their local CRM-TWG.

Contributed by Rebecca Pestaño-Smith, IEC Advisor, CRMP

3. For the CRM process, interpersonal or face-to-face communication is still the most preferred effective mode. IEC initiatives such as community meetings, public forums, focus group discussions, and one to two-day CRM orientation sessions are relatively inexpensive and effective.

4. Along this line, group discussion skills as well as facilitating skills are found among community organizers, NGOs, and members of the academe. Their services can be tapped to undertake conflict negotiations and consensus building activities.

5. Key influentials at the local level can be strategic allies for CRM. Members of the provincial board or municipal councils, traditional leaders, business leaders, opinion leaders, community organizers, *barangay* captains, fisherfolk organizations, women's groups, civic or church-based groups and supportive mayors or governors can call or facilitate CRM-related meetings and forums. Local "CRM champions" can be identified from among them and mobilized to initiate or assist in undertaking IEC activities.

6. LGUs, and to some extent NGOs, have access to basic communication hardware such as television sets, VCRs and public address systems. CRM-IEC implementors at the *barangay* level can borrow equipment from provincial or municipal information offices. In addition, the presence of private video houses at the *barangay* level are also effective channels of CRM information. Community meetings can be preceded by video showings and the playing of CRM messages and may even be "broadcast" to a wider audience via a public address system.

7. Schools are social change institutions and children are effective social change agents. Tapping the support of local schools and teachers as well as the Boy Scouts and Girl Scouts organizations will go a long way in sustaining IEC activities for CRM.

8. Community meetings and social gatherings such as town fiestas, foundation days, and market days can be used as IEC opportunities. LGUs in partnership with various sectors can sponsor low-cost exhibits, dialogues, contests, and community theater activities. Other windows of opportunity include the observance of Earth Day in April, Ocean Month in May, Environment Month in June, World Food Day in September, and Fisheries Conservation Week in October.

The creation of a multisectoral IEC Working Group to jointly implement IEC will be greatly beneficial to the CRM cause. Such a group can be drawn from the CRM Task Forces (if any), or from existing environmental multisectoral groupings in the locality.

chapter 6

Sustaining community involvement in CRM

Sustainability of CRM initiatives requires that both the LGU and community reach a level of management capability that will allow for continued implementation and refinement of the management plan on a long-term basis. Asking the community what it thinks and involving them in every step of the process is critical. Ensuring some early successes by identifying interventions that are relatively easy and likely to be successful is one way to encourage local acceptance of the CRM plan. Tangible social and economic benefits are key motivating factors and should be built into all plans. The willingness of the community to participate, the level of community awareness and organization, the extent of support from government institutions, and the legal and policy framework are important determinants of success and sustainability of CRM efforts. (Table 45).

Table 45. Lessons learned in community-based management (*White* et al. *1994*).

Start correctly as it is difficult to recover from a bad start:
- ◆ Start simply and show results early;
- ◆ Identify clear achievable objectives;
- ◆ Identify indicators and measure progress;
- ◆ Include all stakeholders in the process;
- ◆ Communicate successes to wider community; and
- ◆ Integrate good local/traditional knowledge with scientific/technical knowledge.

Management requires community organization and cooperative behavior:
- ◆ Form core management groups with community representation;
- ◆ Train future leaders; and
- ◆ Identify issues that are relevant to the community and determine underlying causes.

Feedback of results is required to sustain community participation:
- ◆ Monitor with community participation;
- ◆ Use simple technology that will produce accurate monitoring results; and
- ◆ Use monitoring to guide local programs and national policy.

Carefully utilize outside linkages and support:
- ◆ Maintain trust between community and outside institutions;
- ◆ Use alliances and coalitions to resolve larger issues; and
- ◆ Remember that co-management systems take time to evolve.

Recognize obstacles and limits to community management:
- ◆ Community approaches cannot resolve problems originating from outside the community with government assistance;
- ◆ More integrated approaches may be needed for larger, complex issues;
- ◆ Education alone does not change behavior; economic alternatives must be created; and
- ◆ Communities will only respond to issues that are closely linked to their resources.

Expansion of programs is easier when initial projects succeed and are maintained:
- ◆ Successful pilot projects tend to spread; and
- ◆ Initial success on small issues leads to expansion to larger issues.

Case studies have repeatedly shown the importance of community organization, community participation, and public education in CRM (White *et al.* 1994; Wells and White 1995; Ferrer *et al.* 1996). Key questions and indicators to consider in evaluating the long-term success and sustainability of CRM efforts are described below.

Has the community been organized to serve as the smallest management structure?
- Functional structure established at the *barangay* level to reflect concerns of community to municipal management councils; and
- Alliance of *barangays* established so that issues that affect more than one *barangay* can be addressed and resolved.

Is there widespread acceptance of the plan and a high level of participation?
- Representatives of all major groups involved and in agreement with plan;
- Memoranda of agreement signed by relevant parties (LGUs, NGOs, and POs);
- Widespread awareness of CRM plan, relevant ordinances, benefits to community; and
- Early successes publicized to galvanize support and show benefits of plan implementation.

Is there strong legislative and LGU support for the plan?
- Process of getting village ordinances approved by Municipal Council completed;
- Good working relationships established between LGU and community; partnerships formalized;
- Community provided access to legal counsel and technical expertise to promote community advocacy; and
- Community advocates in place to monitor changes in LGU support and policies over successive municipal administrations.

Have significant steps to improve human resource capability been made?
- Institutional strengthening program in place to ensure that LGU staff adequately trained and equipped to solve technical issues; on the minimum, training for CRM may include: CRM planning process, PCRA, facilitation shells, mangrove management, sanctuary establishment and management, etc.
- Local resource users educated about plan, ordinances, individual and community-level responsibilities;
- Local coastal resource leaders identified and process in place to train next generation of leaders; continuous training of second-line leaders; and
- Study tours and other knowledge transfer opportunities in place to learn from and exchange ideas with other communities.

Is the plan integrated across sectors and environments?
- Plan based on an ecosystem approach that incorporates marine, shoreline, and terrestrial components, as relevant, and
- Multisectoral involvement established at community and LGU level.

Is there sufficient investment from private, NGO, and government sectors?

- ◆ LGU allocated a specific and adequate budget to finance CRM;
- ◆ Economic rents/revenue collection from CRM initiatives in place to support LGU and community;
- ◆ New private sector economic opportunities consistent with plan objectives in place in the community;
- ◆ Community capability established to tap internal and external revenue sources; and
- ◆ Viable economic activities (livelihood or enterprise development activities) in place.

Will there be continual monitoring, evaluation, and refinement of the plan?

- ◆ Specific criteria identified to measure success of the plan; monitoring and evaluation program in place;
- ◆ Regular meetings planned for key partners to evaluate plan and focus additional efforts;
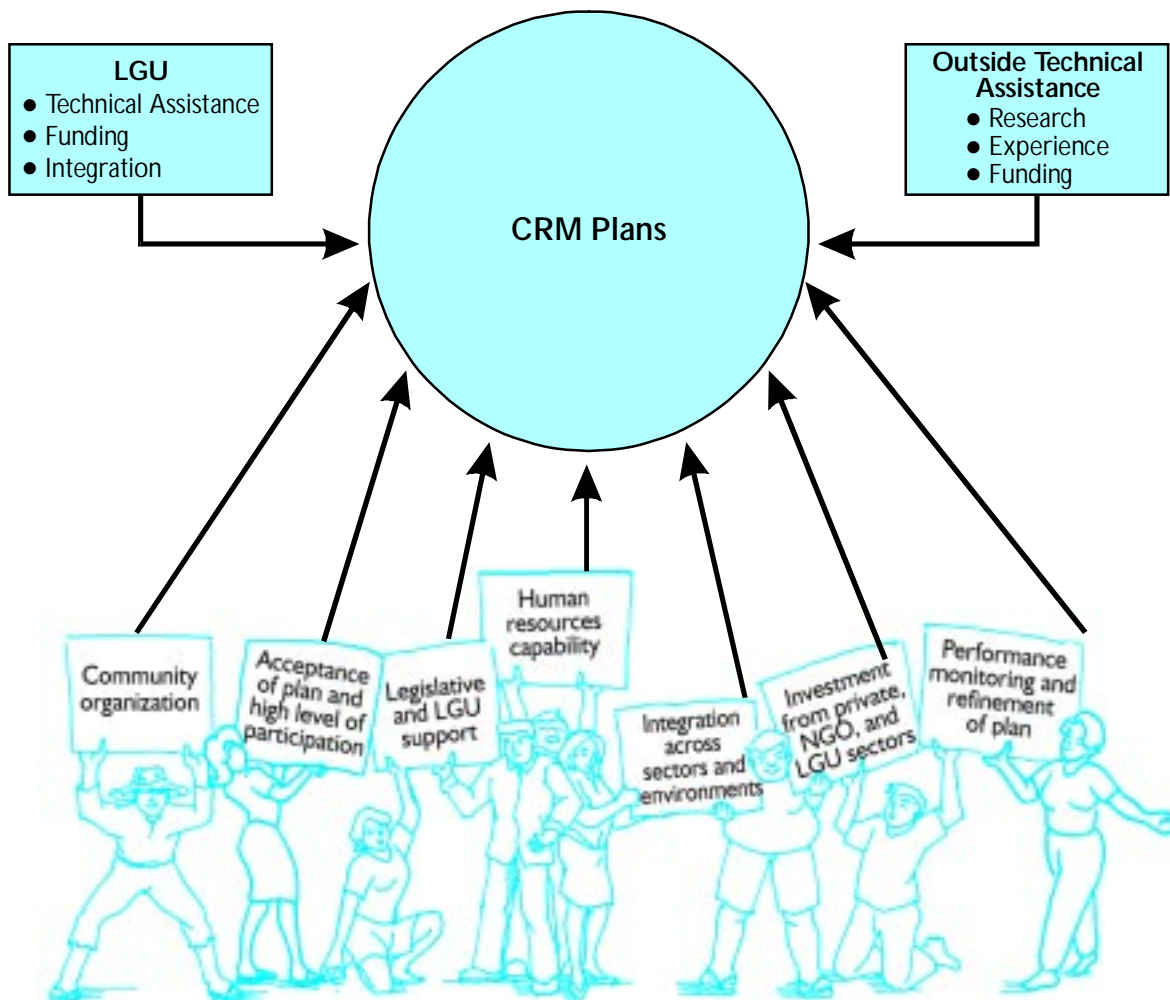- ◆ Annual review of lessons learned (successes and failures) included in performance evaluation;

Figure 19. Sustainability of CRM plans.

- Adaptive and flexible response mechanisms in place to respond to performance indicators;
- Community role and capability established to participate in ongoing monitoring;
- Ongoing research and partnership established with academic or research institutions to assist in long-term monitoring; and
- Community provided access to database of monitoring results.

Summary

Community-based CRM has proven to be a successful approach in the Philippines, especially when combined with strong legislative and local government support. The components of successful and sustainable CRM programs include:

- **Identification and participation of all stakeholders:** The inclusion of all relevant stakeholders requires a purposeful process of identifying important groups and ensuring their participation throughout the CRM planning process.

- **Well-organized communities:** A community organizer should be secured to mobilize and organize the community, train leaders, facilitate consensus-building, and advocate for the community. The community organization process should be started early and carried though the CRM planning cycle until the community is empowered to manage its own resources.

- **Public awareness and critical mass of concerned citizens:** Raising public awareness of the condition of coastal resources and potential solutions and developing a critical mass of people concerned about CRM is a critical component of the process that can be accomplished through IEC.

- **Use of participatory tools to increase local involvement and human resource capacity:** Participatory tools such as PCRA, study tours, workshops and group discussions, training and public education programs, and community implementation projects should be used to promote local involvement and build consensus for the CRM plan.

- **Adherence to planning process:** The iterative process of preparation, gathering information, prioritizing issues, developing strategies and action plans, implementing plans through projects, monitoring and evaluation of results, and refinement of plans is a proven approach that will allow for long-term adaptive management of resources.

Capability-building activities and training of community trainers, such as this group on Handayan Island (Getafe, Bohol), enhances local participation and ensures sustainability of CRM efforts.

Institutionalizing a community monitoring program is one important mechanism for sustainability.

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Environmental issues in the coastal zone are generally complex, and the environmental education or public awareness component of a coastal resource management program requires a comprehensive and holistic approach to communication at the community level.

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